

COMMERCIAL CAR JOURNAL

SEPTEMBER
1931



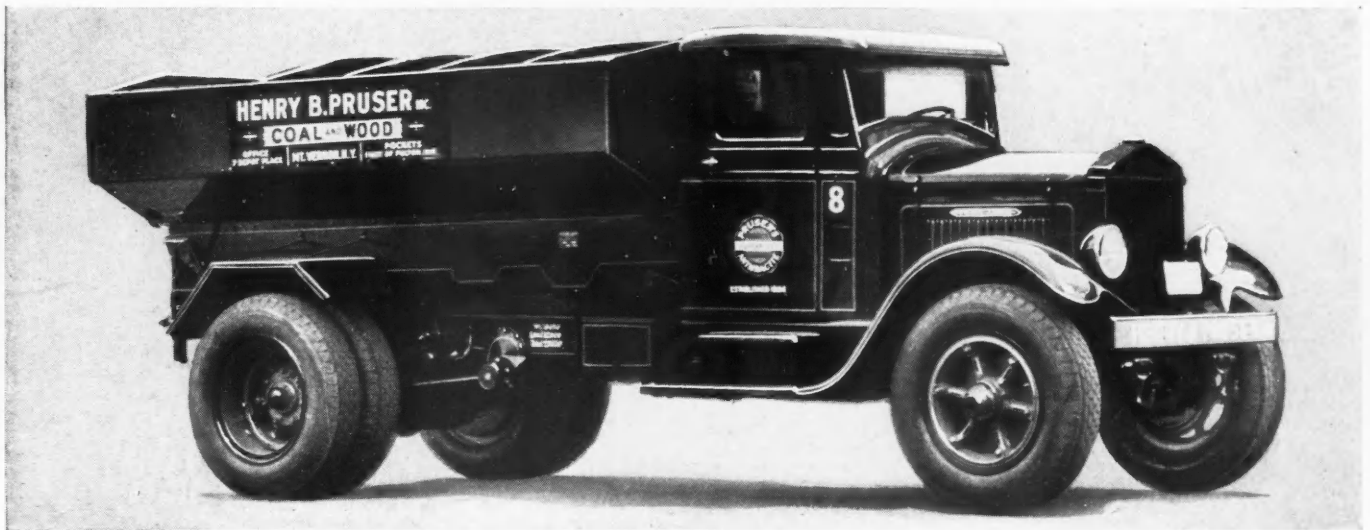
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PIERCE-ARROW

Buffalo, New York

COMMERCIAL CAR JOURNAL

with which is combined Operation & Maintenance

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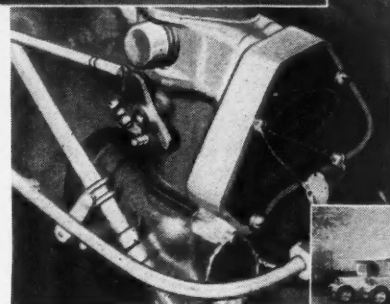
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equipped fleet of the
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BY J. J. GIBSON, PRESIDENT

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1898—The first Timken Bearing had no cage. This caused excessive friction due to contact of the rolls revolving against each other in opposite directions.

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that became more and more difficult as automobiles became larger, more powerful, faster.

When the need for better material became urgent, Timken created a special grade of alloy steel, and later built a steel plant so that its quality could be positively controlled. Special heat-treating, machining and other processes were similarly developed.

Timken design and material *plus* Timken's experience in applying bearings to automotive needs are jointly responsible for the important part Timkens play in the wonderful performance of modern automotive vehicles.

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TIMKEN *Tapered Roller* **BEARINGS**

COMMERCIAL CAR JOURNAL
PHILADELPHIA, PA., SEPTEMBER, 1931

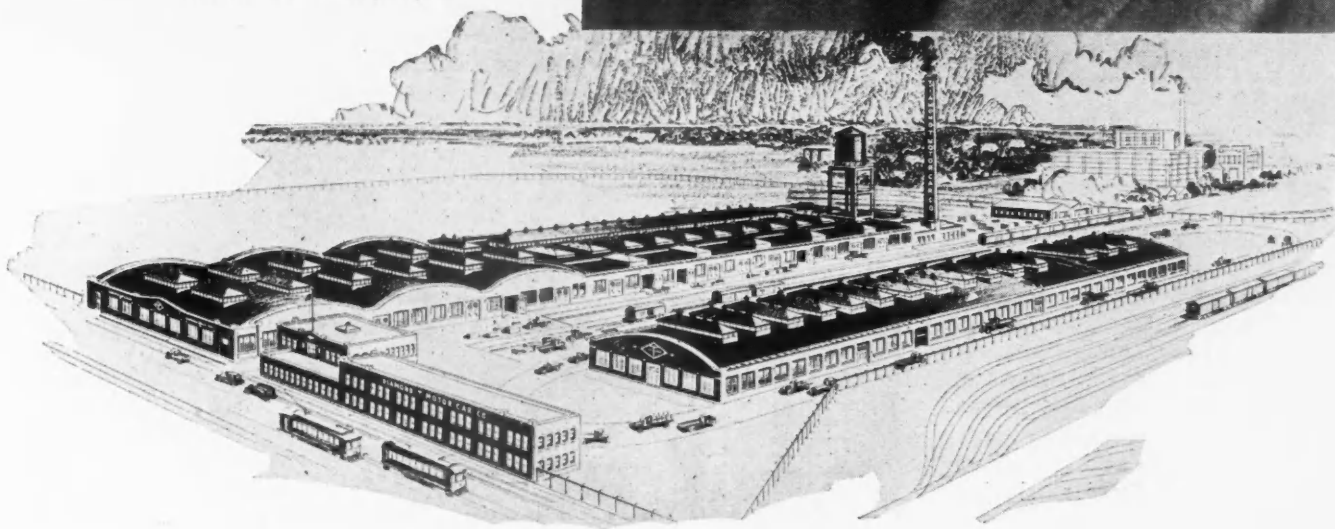
THE PRESIDENT'S PAGE

Now is the time to clean house. Eliminate non-producers, unnecessary expense, horse-trading methods and stabilize rating system, price and discount structure, truck paper, factory and dealer financing methods

BY

B. Q. Tier

President, Diamond T
Motor Car Company



IN times such as we are now passing through, which I choose to call a period of readjustment rather than of depression, one of the first steps taken is to clean house. We analyze our own organizations, eliminating the dead wood and reducing unnecessary expenses. The dealer does the same thing, eliminating the non-producers. We all set ourselves to work harder and pride ourselves upon being reborn, so far as our industrial activity is concerned.

It must be granted that these policies are necessary in times such as these, but why shouldn't we go a step further and clean house in the entire industry and perhaps make it possible for some of those who are being forced into the unemployed ranks to continue as producers? Why shouldn't we take advantage of situations of this kind, when most minds are groping for new answers to old problems, to put our entire industry on a sane and sound basis?

While I may be termed a radical, I cannot help feeling that the truck industry, as a whole, is in a pitiful condition, if judged by modern business standards. I feel that from a design standpoint motor trucks have kept pace with the increased demands placed upon us by transportation development during the past ten years. Aside from this, I feel that we are guilty of being miles and miles behind the business procession.

Taking up first the matter of motor truck ratings. The COMMERCIAL CAR JOURNAL is to be congratulated on the publicity it has given this subject and it must be obvious to every thinking man in the industry that we are handicapping manufacturers and dealers alike by our inability to agree upon some standard method of rating motor trucks which will be recognized, understood, and respected by

TURN TO PAGE 48, PLEASE

WHY FLEET THUMB BE DOWN ON OWN

Cost of Stocking Parts, Overhead and Supervision Duplicates Sim- ilar Charges in Shops Elsewhere

THE job of a fleet superintendent is to keep his vehicles on the road 100 per cent of working hours; to keep them in safe condition and satisfactory to operate, and to do it economically. Included in these functions are, in many instances, the added responsibilities of managing a fleet maintenance establishment. In case of large companies operating hundreds and hundreds of trucks it becomes a question whether they are in the motor vehicle business or selling dry goods, coal, gasoline, electric service, etc.

There can be no doubt that fleet maintenance reaches the proportions of a separate business in many cases. For example a recent description of a fleet shop reveals a stock of parts totalling about \$100,000 and another fleet of something more than one thousand vehicles carries a stock of parts and unit assemblies valued at twice this sum. Costs of shop buildings likewise run into big figures, hundreds of thousands to more than a million. Shop forces are large, those numbering fifty or one hundred are not uncommon. These figures are of the order of one mechanic to each eight to ten vehicles; parts stocks to something in excess of \$100 per vehicle. The latter figures, of course, do not include investment in land or buildings for the shops.

Meanwhile, these facilities and stock of parts are duplicated by dealers, factory branch or independent shops in the same territory. In the case of parts, the fleet owner carrying parts in stock pays the manufacturer or the dealer a shelf-carrying charge which is included in the net cost of each part. In addition, it costs the fleet owner 10 to 15 per cent to carry parts in

We wish to assure our readers of the authenticity of the ideas advanced in this article. They are those of a very prominent fleet operator, connected with a large organization, who gave his views in an interview with a member of this publication's editorial staff. The reason the editor saw fit to omit his name and connection was to avoid such unnecessary implications as generally arise when personal opinions appear in association with the name of a company. The editor will welcome arguments, pro and con, of fleet-operator readers. If they so desire, similar consideration will be given to the concealment of their identities.



his storeroom. There is a duplication here in the cost of carrying parts in stock in the fleet shop and in the outside shop.

In any large private stock of parts there is a loss from obsolescence because the vehicles for which the parts were purchased have been sold, junked or traded in. On the parts which must be junked there is a total loss in addition to the cost of carrying them in stock until junked.

A large stock of parts requires the services of a group of storekeepers, stock runners, supervisors and clerks, all of whom are non-productive. In

spite of the best intended accounting system and efforts of the stockroom, force shortages will be found in stock at stock-taking, and resulting "adjustments" appear in red, not in black, ink.

Men in charge of stockrooms try to keep stocks down, and under present conditions they are "aided" in their efforts by edicts of the management, but nevertheless it is a human trait to over-order rather than under-order parts. Over-ordering brings criticism only at widely separated intervals, but being short of parts arouses the ire of shop foremen and mechanics continually.

SHOULD SERVICE



Those who defend the carrying of a relatively large stock of parts point out that dealers' and manufacturers' parts stations generally are unwilling to deliver parts and that a considerable stock is necessary to meet shop demands between receipt of shipments of relatively large quantities. The parts stations declare that the added cost of retail delivery would cut their profit considerable. It seems probable that any far-sighted fleet operator would be glad to pay an equitable amount for delivery.

The final proof that overhead and other charges involved in carrying a

NEXT MONTH

IN this article, to be followed by a second, the fleet executive points out some of the handicaps in maintaining a fleet shop which led him to turn over all maintenance except inspection and running repairs to outside service stations.

The second article, which will appear in the October issue, will present his ideas of what dealer, branch and independent shops should do in order to get more fleet work. His recommendations are definite, to the point and proven because they are just the things which shops have done to secure his business.

large stock of parts can be generally avoided is the fact that there are more than a few fleets of more than 1000 vehicles in which the investment in parts stock is limited to \$5 per vehicle.

Other duplications with accompanying investments, carrying charges and overhead exist in fleet and outside shops. A garage may be needed in any case, but the shop itself, or the part of the storage building assigned to repair work, is duplicated in outside shops.

Likewise, special tool equipment is required for each of the several makes

WHY FLEET THUMB SHOULD BE DOWN ON OWN SERVICE

of vehicles making up a given fleet. In some cases the tools are required to cut down time required for certain jobs, in others the work cannot be done at all without the equipment. Ordinarily depreciation of tool equipment is based upon a ten-year life, but special tools must be written off in a shorter period because the vehicles for which the tools are designed are discarded in less than 10 years.

Other, but less obvious, handicaps spring up in managing a fleet shop unless the man in charge takes special precautions to prevent them. Shop mechanics and foremen take special delight in devising and making every manner of gadget, although these items may be obtained on the market for less cost than fleet-shop cost. For illustration—the host of swinging stop signals.

There also seems to be a tendency on the part of the shop force to anticipate repairs to other units when a truck comes in for a specific repair. This results in the doing of certain work or undertaking a major or minor overhaul ahead of time. This fault is also found in outside shops, but we shall discuss this subject in subsequent paragraphs.

● Anticipated Repairs ●

A fleet shop quite naturally wishes to make a good showing and to keep idle time to a minimum. As a natural result the shop hunts up business when work drops off; a hurry call is sent to the operating department to send in as many trucks as can be spared for repairs. Again work is done before it is really needed.

Not least of the problems connected with fleet shop management is the effect which a large shop has upon the fleet superintendent. The shop, at best, takes a lot of his time and interest. Frequently it overshadows his other responsibilities and he is all wrapped up in making the shop pay and neglects the economies of running vehicles upon roads.

Turning all maintenance work, except running repairs, over to outside shops brings certain incidental savings to the fleet shop which are frequently entirely overlooked. Consider jobs which go bad—and where is the shop which makes a 100 per cent record year after year? In the fleet shop the job is done over at additional cost. The service station must guarantee its work and make good, N.C., on no-good jobs.

S. A. E. Takes a Hand

A sub-committee of the Transportation and Maintenance Activity of the Society of Automotive Engineers is making a survey of fleet maintenance among fleet owners and outside service stations. The report, which will be given during the Annual Transportation meeting of the Society by John Orr, Equitable Auto Co., Pittsburgh, will show what work is being done in fleet shops and what is being sent out by fleets of various sizes and the facilities offered by service stations.

Paper work, detested by shop men, is reduced because service stations do the bookkeeping and forward bills sufficiently itemized to permit careful checking. Fleet accounting is not eliminated but it is simplified.

Peaks and hollows, rushed-with-work and idle periods turn up in the best managed fleet shops, in many instances because of seasonal variations in the business of the establishment owning the fleet. They reduce shop efficiency because the shop, if large enough for peaks, is partly idle part of the time or, if it is too small for peaks, trucks are held up for repairs during rush seasons.

Hills and dales in volume of service required by one fleet impose little tax upon an outside service station because a rush in one offsets a slack time in another.

Just to forestall misunderstandings or arguments about non-essentials let us agree that no fleet shop is entirely self-contained and thus able to perform all, sundry and various of the jobs which are, or hereafter may be, required to keep a fleet running. They send some work elsewhere, and so do the dealer, factory branch and independent shops. Likewise even the smallest fleet, for example a one-vehicle huckster route, performs some of the elementary maintenance operations for itself. We are concerned with general policies—with a decision whether to do all work in a fleet shop which may reasonably be done in such an establishment or to turn most of the work over to others, reserving for the fleet organization preventive maintenance and running repairs or, in some cases, none at all.

● Idle Time Low ●

With repairs sent outside, a fleet may be maintained with one employee for each 15 to 30 vehicles, and as previously stated \$5.00 per vehicle investment in parts. The man in charge of operation of a fleet is vitally in-

terested in the amount of "time out" for repairs. Records such as an average of only ten hours idle time per vehicle per year for repairs are being made by fleets operating under the maintenance plan suggested.

Under this plan the fleet owner attends to filling with gasoline, lubrication, adding and changing crankcase oil, washing and tinkering repairs. He also employs inspectors who visit the vehicles regularly, inspect them, make adjustments and perform preventive maintenance operations so far as they can be carried out in the open or in garage storage space.

They do not surrender control over maintenance of the fleet by turning work over to others. The inspectors decide what repairs are to be made; if there is any doubt an inspector goes to the outside service station and looks over a unit after it is opened up. Of course, it sometimes happens that the inspector authorizes specific repairs and when the truck reaches the shop the inspector there finds, after disassembly, that something else should be done. In such cases they have the service station men get in touch with the inspectors and come to an understanding before proceeding with additional work.

● Sampling Inspection ●

When the unit is opened for repairs only those parts should be replaced which actually require replacement. The number of parts discarded in a truck which will soon be turned in will, of course, be different than in trucks which will be kept in service for several years more.

Fleet owners with their own shops know how repair work is being done and they are concerned about giving up this supervision and check. With the work secured in outside shops this is accomplished by reserving the right to have the inspectors go into any shop doing such work, at any time. They do not hang around shops hour after hour checking up on every detail of every job, but in the course of their work they visit shops often enough to enable them to know what is going on. This sort of "sampling" inspection has proven effective.

Repairs to bodies are handled like mechanical repairs except that nature of the work calls for more individual attention on the part of the inspectors.

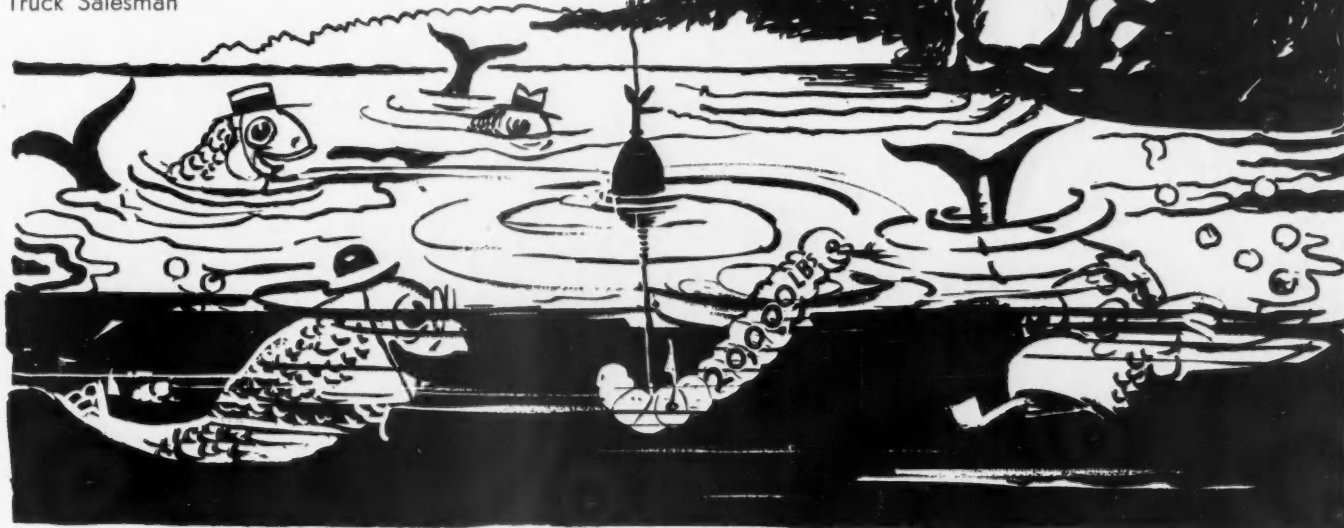
It is a certainty that many of the operators in the fleet field will challenge their conclusions, doubt the facts and seek to confound with tales of shortcomings of individual service stations. Their views deserve a hearing, their standing and ex-

TURN TO PAGE 44, PLEASE

LET BUYERS RATE TRUCKS

They Can Judge Truck Merits and Ability and Won't Bite Twice on Same Bait

Says D. R. HARRINGTON
Truck Salesman



INTELLIGENT truck salesmen know that the truck market is no longer composed of men who don't know trucks. Even time-honored trade names are not above suspicion in buyers' minds. They don't care how long a corporation has been manufacturing trucks. They want to know what kind of a truck it is manufacturing this year. The present-day buyer is capable of judging the merits of the truck for himself. If he gets hooked on the rating of a truck once he won't bite at the same bait again.

Pinning the blame on salesman, user or someone else is not the answer. Imitating the ostrich will not do, nor will buck-passing. Tackle the situation in the old-fashioned way. Build trucks and rate them to meet the customer's wishes—that is the surest way to clear up the rating situation.

Rating a truck is a simple and yet a serious problem; it all depends on the type of truck under consideration. It is a simple problem to build a truck and balance the various units to carry a stated load. But it is a serious matter to find a buyer who will not carry more weight than the stated capacity. The majority of truck users expect a

truck to carry more than its rated capacity, and as they "pay the freight" there is no logical reason why their wishes should not be considered.

During the years when the solid-tired truck was in vogue there was a distinct cleavage between light and heavy-duty truck builders. You bought a delivery car equipped with pneumatic tires or you bought a truck equipped with solid tires to carry a big load. When a customer bought a 1½-ton truck equipped with solid tires he usually carried three or four tons.

● Accepted Policy, Then— ●

Few if any manufacturers questioned this policy, and orders were gladly accepted with the overweight written plainly right on the order blank. There was no question of gross rating—the truck was bought to do a certain job. But the old distinct cleavage between the two types of manufacturers has passed out of the picture since the demand for the fast pneumatic-tired, heavy-duty truck became general. Today light-duty manufacturers are building heavy-duty trucks, and some of the heavy-duty

manufacturers have been stampeded into a price-reducing orgy that is, together with the rating situation, coloring the balance sheet red.

To clear up the rating situation I suggest a simple formula: multiply the chassis weight by three, the answer would be the gross rating. Subtract weight of the chassis, body, spare tire, tools, etc., from the gross rating and the result is pay load.

Using this formula on three 1½-ton trucks of various chassis weights we get the following results:

Truck A	
Chassis weight	2,700 lb.
Body, spare tire, etc.	1,400 lb.
	4,100 lb.
Gross rating	8,100 lb.
	4,100 lb.
Pay load	4,000 lb.
Truck B	
Chassis weight	3,000 lb.
Body, spare tire, etc.	1,400 lb.
	4,400 lb.
Gross rating	9,000 lb.
	4,400 lb.
Pay load	4,600 lb.

TURN TO PAGE 44, PLEASE

ANOTHER FLOOD OF

By JAMES W. COTTRELL

These shop ideas are a continuation of the article in the August issue describing shop devices made by the shop of the Gulf Refining Co., Upper Darby, Pa. This group of ideas is devoted to general shop equipment, storage racks, material handling, etc.

Practically all moving of parts in this shop is on wheels, either on overhead monorails or on floor casters. Even the truck frame stand is on casters, and the

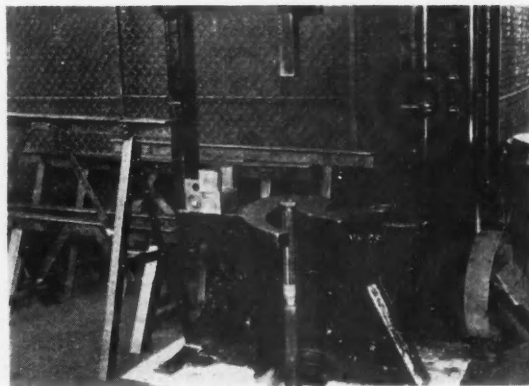


TUESDAY		6/8/31		JUNE	
STALL	TRUCK	TAG	COAT	STATION	FIN.
1	1365A	8	R	BALTIMORE	11
2	102B	2	P	CAPE MAY CH	15
3	4		F	CHESTERTOWN	9
4	1375A	5	R	GIRARD POINT	10
5	1337	8	T	GIRARD POINT	13
6	1261A	1	P	COLLINGSWOOD	15
7	520	6	P	UPPER DARBY	8
8	137	*	P	TRENTON	16
9					
10					

Paint Schedule Board

Shows status of each job in the shop at a glance.

Painting, like other work in this shop, is carried forward on schedule. This board, placed above the foreman painter's desk, shows location of each truck in the paint shop, when it entered the shop, how many coats it has received, to which company station it belongs and when it will be finished.



Pit Under Press

Saves time in blocking up for work upon ends of long pieces and extends limit of length of parts a press can handle.

Both this press and the one shown in August issue, page 29, have pits in the concrete floor directly under the center of the press tables. By rare foresight, the need for these pits was recognized before the floor was laid during construction of the building.

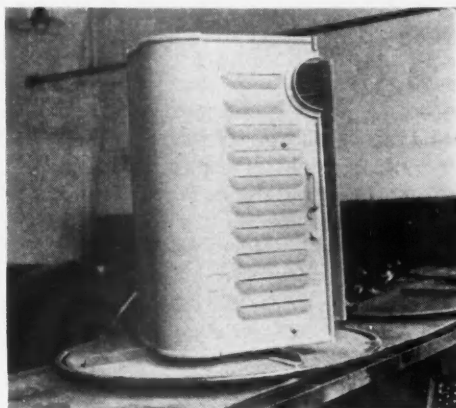


GOOD GULF IDEAS

19 MORE SHOP TRICKS

largest frame can be moved about by one man.

Description of the many time and labor-saving devices in this and the August issue was made possible by the co-operation of E. H. Grey, general superintendent of motor equipment; J. M. Stoeckle, district superintendent of motor equipment, and Thomas Wilkinson, foreman, and members of the shop staff.

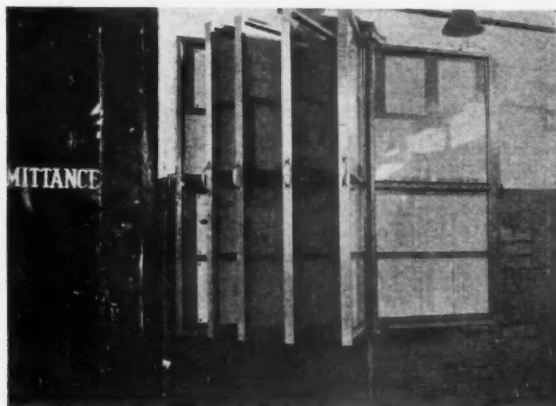


Hood Turntable

Saves many steps and gives better light and ventilation on job.

Standing with his back to the light, a painter sprays paint on a hood with one hand while he turns the hood turntable with the other. This keeps the spray away from him and saves him the trouble of walking around the hood.

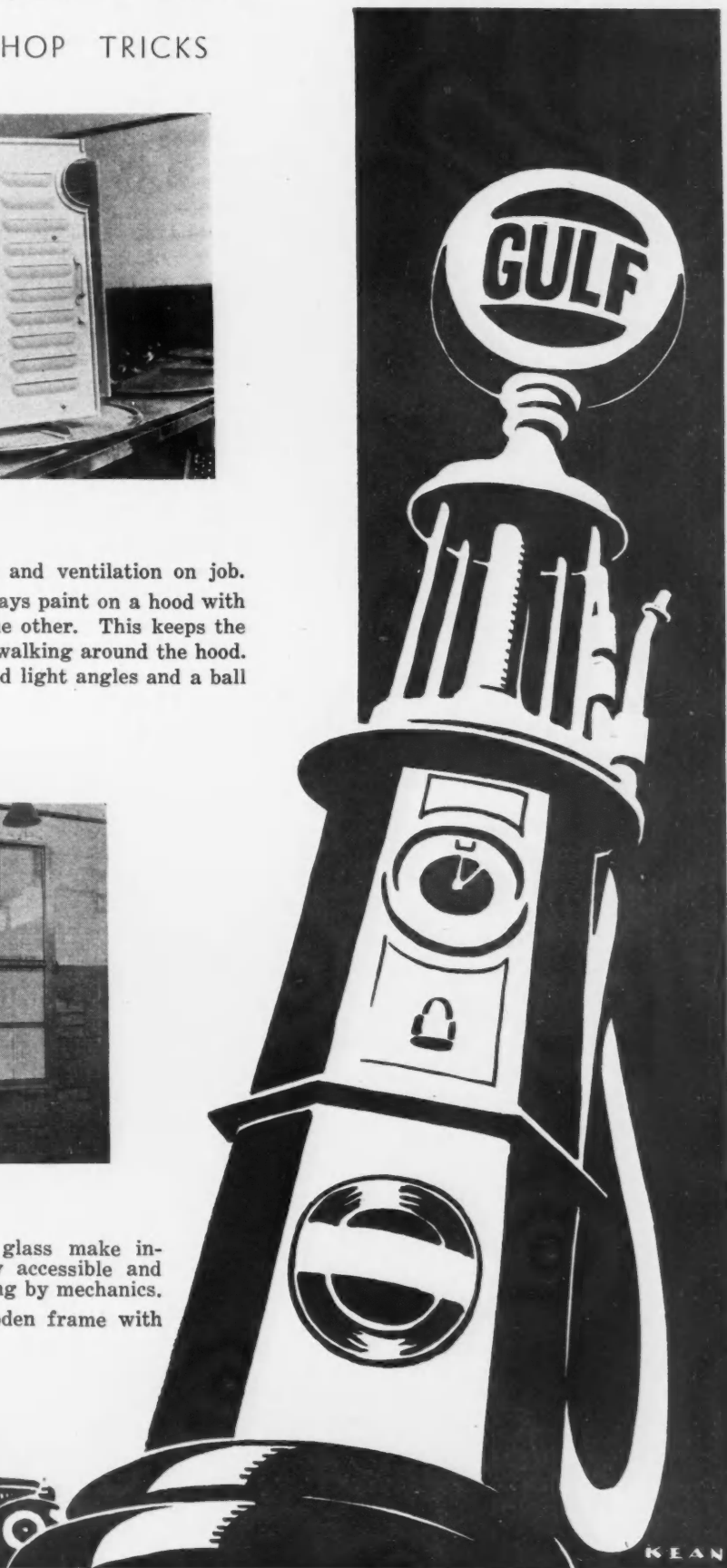
The table is a circle of tubing, a flat plate, crossed light angles and a ball thrust bearing on the shaft.



Instruction Book Mountings

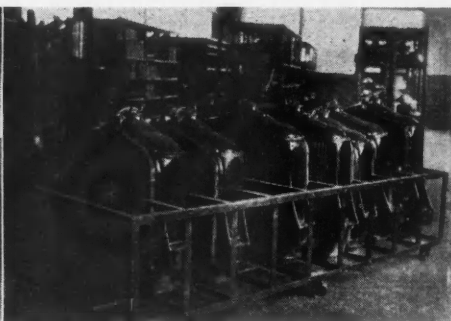
Vertical swinging boards covered with glass make instruction books and service data quickly accessible and preserve the sheets from damage and soiling by mechanics.

Each "page" of this instruction book is a wooden frame with middle cross-piece, making two panels.

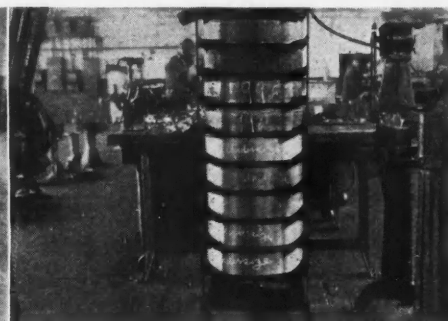




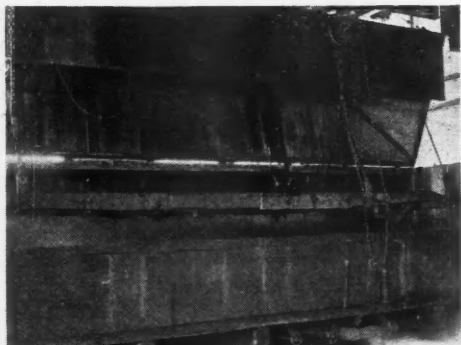
1



2



3



4

Storage

Parts racks and bins, which are not too large or heavy, are equipped with casters. A similar rack serves the shop floor. The rack used for reserve stock (Fig. 2, above) has capacity of seven radiators. The two center bars support the weight of the radiators.

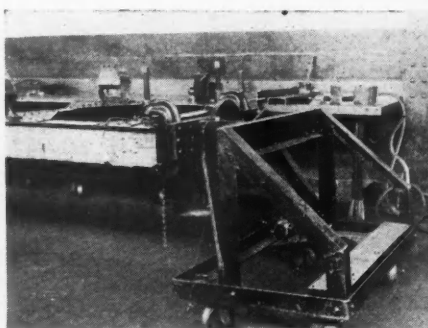
The brake-drum rack (Fig. 3) has space for 11 drums in no more floor space than one. The drums slide in angles like desk drawers. Those which have been machined are marked "undersize" in chalk.

Main stock of springs in the parts room is carried on arms on A-frames. Any spring shown in Fig. 1 may be lifted by a power hoist on a monorail which extends through the second floor parts room to the shop, which has two-story ceiling height.

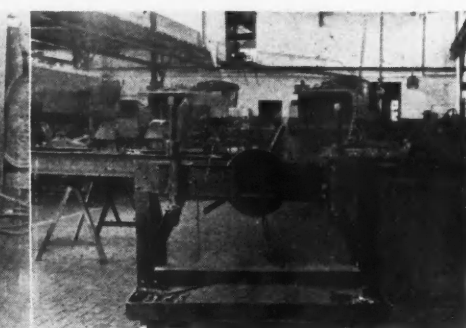
Cleaning Tank

Dirt and paint are stripped from chassis frames and tank bodies in a large cleaning tank (Figs. 4 and 5) in a fraction of the time required to do the work by hand or by ordinary pressure cleaning. The cleaning is entirely automatic after the unit is placed in the tank.

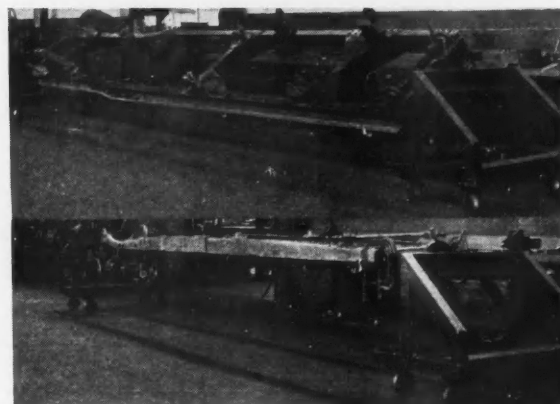
This tank, which is large enough to accommodate truck frames and large compartment tanks, is equipped with a power-operated folding cover or lid. Frame or tank is carried from the disassembly floor in front of the tank and deposited on brackets within the tank. Pushing a button starts a motor which drops the lid over the tank. A motor-driven pump sprays cleaning solution over frame or tank and after a short time not a trace of dirt or paint remains. Actual cleaning involves no labor at all, as the part to be cleaned is not touched after it is placed in the tank. Engines and similar units are cleaned in two smaller tanks.



6 a



b



c

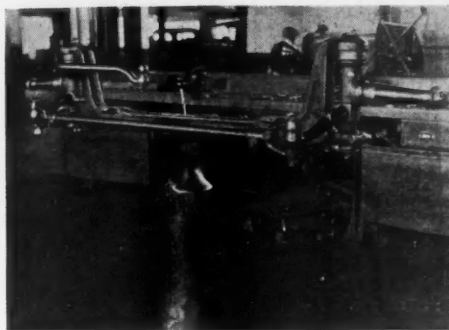
d

Chassis Carriage

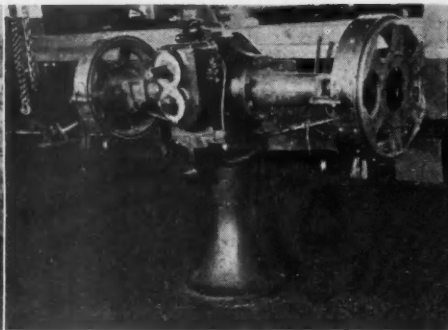
Two stands (Fig. 6), one at each end of a truck chassis, turn the frame to any desired angle for riveting, welding or other repairs; hold it upside down for attachment of springs and axles and enable one man to turn it over for assembling the chassis and to move the frame about the shop floor.

Base of the stand measures 48 x 30 in. and is made of 3 x 3 x 1/4 in. angle iron. Height above casters is 27 in. The cross-bar, which is a 6-in. channel, swivels in a pair of 12-in plates, one attached to the bar and the other fastened to the stand. The plates are drawn together for locking the frame in position by means of a 1 1/4-in. bolt and a threaded round plate with five handles.

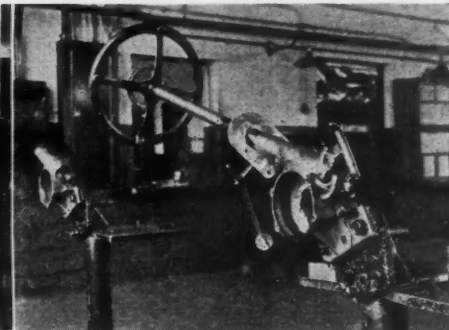
Cross-members of the frame are gripped by two large C-clamps, with spacing and openings adapted to both channel and pressed-steel type frames. Construction of the stands is shown in views (a) and (b). A frame tilted for riveting is shown at (c) and another type frame ready for attachment of springs at (d).



1



2



3

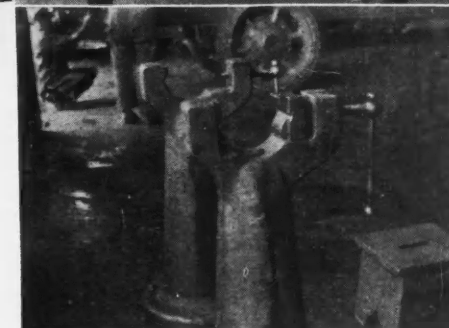
Stands

Permanent stands are provided for supporting major chassis units such as front and rear axles, steering gears, engines and transmissions. All are adapted to use with two types of units in the fleet, those from 3-ton trucks and those from 5-tonners. These stands make the units accessible from all sides and hold them firmly in place despite tugging on bolts.

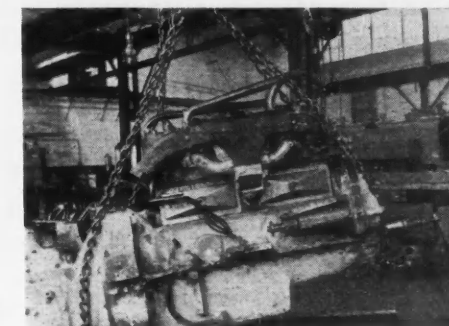
The front-axle stand (Fig. 1) has a single clamp at the center which holds the axle either right side up or upside down. Alignment is checked with axle in the stand. The rear-axle (Fig. 2) stand also has a single center support, leaving both ends of the assembly entirely free. A special U-bolt holds the axle in position. Brake drums which are machined to standard undersizes are carried through the shop, and in stock, with their corresponding axles to assure fit between lining and drum.

Steering-gear stands (Fig. 3) accommodate either of two types of gears, and they carry a shelf for parts and tools.

Double rear-axle (Fig. 4) stands are employed in the chassis and parts cleaning room, where mechanics, not helpers, tear down units before parts are placed in cleaning tanks.



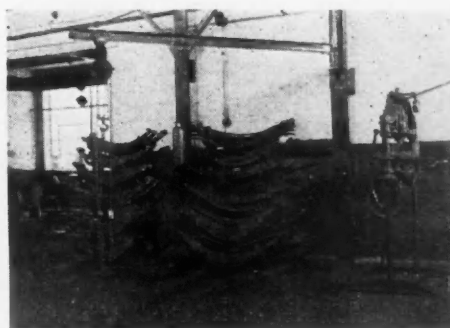
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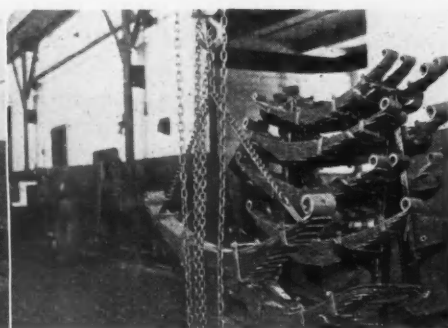
5

Engine Hoist

Floor stand and monorail with hoist (Fig. 5) make it possible for one man to move engine about the shop. Although there is nothing unusual about an engine in a sling, this illustration directs attention to the fact that in this shop the difficult tasks have been made one-man jobs by use of special equipment rolling on the floor on overhead monorails.



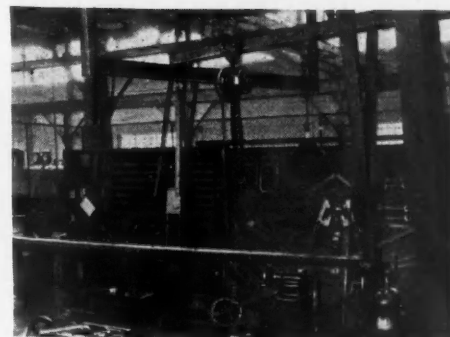
6



7

Repairing Springs

Swinging track, chain hoist and sling with two hooks make it easy for spring repairman to move springs and place them on shop rack (Figs. 6 and 7). The spring-repair department is placed in one corner of the shop floor. A channel monorail track is pivoted on a vertical column and supported by a round-bar steel brace as in "6." Springs are lifted by two hooks engaging the spring rebound clip bolts instead of the spring eyes as in "7." (White rear springs used in the fleet do not have eyes.)



8

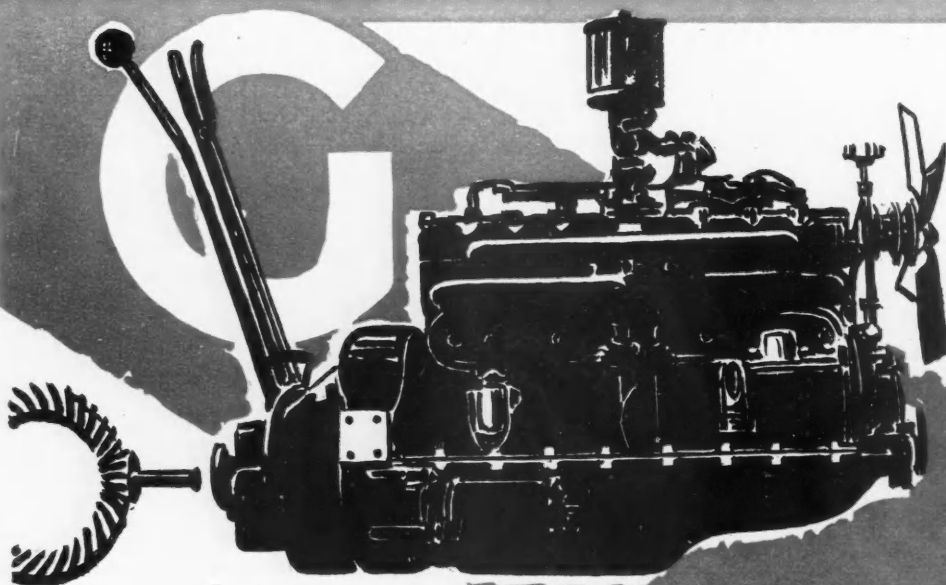
Swinging Monorail

Machinist can lift heavy parts to and from lathe bed without assistance. The outer end of this monorail channel (Fig. 8) is supported on a roller contacting with a channel extending at right angles to the lathe and across the aisle. This makes it possible for the machinist to pick up a heavy part in the aisle, lift it to clear the lathe bed and then swing it into position. The end of the monorail near the headstock swivels on a bolt fastened to a hanger.

TRUCK RATING DEPENDS

By P. M. HELDT

Engineering Editor,
Automotive Industries



WHEN the S.A.E., at its summer meeting, decided to undertake the derivation of a formula for rating motor trucks, it assumed a task by no means light. A modern truck is a complicated structure subjected to stresses which are difficult to measure or predict. Then, too, standards of design change constantly with changing conditions and increased knowledge.

Faced with a divergence of opinion concerning the factors, or chassis units, upon which a rating formula may be based, engineers are inclined to reconcile the views by including several, or all, of the factors, giving weight to each in accord with its relative importance. It is reasonable to assume that the S.A.E. committee will be faced with a problem of this nature and that it will attempt to evaluate all of the proposed bases for rating.

When an analysis is made of present-day rating practice, it soon becomes evident that two distinct conceptions of truck rating prevail. We have, in fact, what may be called light-duty and heavy-duty ratings. The distinction is perhaps sharpest in the 1½-ton class, in which chassis are offered that range in weight all the way from about 2400 lb. to more than 5000 lb. One group in this class averages less than 3000 lb. chassis weight, the other 4000 lb.

This division into light-duty and heavy-duty trucks does not seem at all illogical, as it is based on service conditions. It must not be overlooked that in any particular case maximum safe load depends not only on the truck itself, but also upon the roads over which it is operated, and the manner in which it is driven, that is, upon the operator.

One question, then, to be settled is whether there should be two types of rating—a light-duty rating, representing the absolute load limit which the truck is supposed to carry only under favorable conditions, and a heavy-duty rating, which represents a normal load which the truck can carry continuously, even under adverse conditions, without sacrifice in life, and therefore may be exceeded under favorable circumstances; or whether there should be only a single rating.

In either case it is well to recall that the monetary value of a truck—as measured by its cost of construction—is not dependent upon load-carrying capacity alone. Speed of the truck is a factor of almost, if not quite, the same importance. For instance, the suggestion has been made, as in the Buckendale formula, that we base the rating of a truck upon the maximum gross weight which its powerplant is capable of moving up a certain grade in high gear. If such a rating were adopted, a mere change in rear axle ratio of say from 6:1 to 8:1, which should occasion no change in cost of production, would increase the gross weight rating in the proportion of 6:8, or say from 12,000 lb. to 16,000 lb., and increase the pay-load rating by 4000 lb. It is still essentially the same truck, and what has been gained in load capacity has been lost in speed.

If a rating formula were based solely on the ability of engine, transmission, etc., to move loads, trucks would soon be greatly overpowered. If the nominal capacity of a truck could be increased 50 per cent by merely providing it with a powerplant of 50 per cent greater output, that evidently would be an easy and inexpensive way to obtain trucks of higher capacity. But such trucks would not be balanced in design, and the effect of such a rating formula on design tendencies could not fail to be harmful. Similarly, if trucks were to be rated merely in accordance with the rated carrying capacity of their tires, the result would be over-tiring.

ON THREE FACTORS

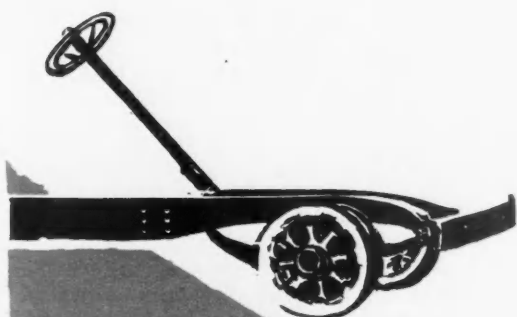
THE CAPACITY FACTORS TRIO

PERFORMANCE—Ability of engine power working through gear reduction to move gross vehicle weight

CHASSIS STRENGTH—To be obtained from coefficients based upon chassis weight

TIRE CAPACITY—Taken from tire makers' schedules

Final rating to be mean of these three factors



have to be shifted. In short, the vehicle does not have the "ability" that is expected of a modern truck.

If overloading is continued, despite this poor performance, it will be found that various parts give out prematurely. Tires will not give the service that one may expect under normal conditions, and there may be failures of frames, springs, axles, etc. In fact, such failures are almost sure to occur if the truck be overloaded so heavily time after time.

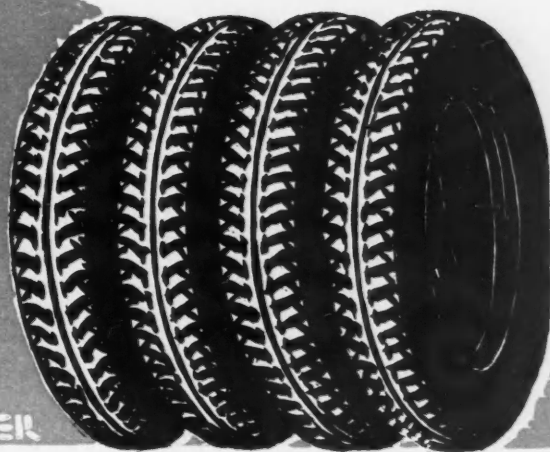
Capacity of a truck, therefore, depends upon ability of the powerplant, in conjunction with the gear reduction used, to move gross weights, and upon the ability of the supporting parts to carry loads. The supporting parts may conveniently be divided into two groups—the tires and the metallic parts of the chassis.

It is comparatively easy to get at the approximate capacities of powerplant and tires, but it is difficult to determine relative capacities or strengths of other supporting parts, including frame, springs, axles and wheels. The only simple index of capacities of these parts that the writer can think of is the total chassis weight. It is obvious that if the same materials were used and the same degree of skill brought to bear on the design, the carrying capacities would be substantially proportional to the weights of the chassis.

The fact that chassis weights vary within very wide limits might be considered proof that chassis weight is far from being a measure of actual carrying capacity. But as already pointed out, the great variations in weights of truck chassis of the same rating are due mainly to differences in conceptions as to what the rating should express. Differences in mentalities of persons determining ratings

TURN TO PAGE 44, PLEASE.

Fundamentally, there are two kinds of limitations on the maximum safe and practical gross weight of a commercial motor vehicle—power and strength. For illustration, if we take an average truck, rated at two tons, and load it with four tons or more, we probably have no difficulty in moving the load over hard, smooth, level roads. We notice, however, that the truck does not handle well. It is very sluggish, or, in other words, it does not accelerate well, and as soon as the least grade is encountered, gears





Under the Make-Up

The request made of the Interstate Commerce Commission by railroads that freight rates be increased 15 per cent has from the very beginning seemed to us one of the neatest bits of strategy ever conceived by rail barons. It was a stone hurled at three birds with the expectation that one of them surely would be brought down. This opinion we have voiced privately, and we might not pronounce it in this public fashion were it not that several men whose analytical and critical faculties we esteem have seen enough of reason in it to approve it.

Before the formal rate petition was filed with the I.C.C., the railroads let off plenty of steam that three causes were to blame for their reduced earnings, any and all of which were responsible. These causes were: (1) unregulated truck, bus and waterway competition; (2) high wages paid to railroad employees, and (3) low freight rates.

The barrage of truck and bus regulation propaganda that was laid by the railroad interests in the 44 states whose legislatures met during the past year was heavy but not as overpowering as was expected. The railroads didn't get the relief they wanted.

Wages were commented upon by some of the leaders, but, in view of President Hoover's firm conviction that nothing could be more disastrous to recovery than a lowering of the standard of living, the matter wasn't pressed.

As a matter of fact, it didn't need to be pressed because the railroads

AFTER HOURS

had the higher-freight-rates trump card up their sleeves. The moment they played it by asking for a 15 per cent increase we saw it, rightly or wrongly, as clever strategy. Thereby the railroads precipitated an exhaustive inquiry by the Interstate Commerce Commission which focused (as nothing short of bankruptcy could have) the attention of the entire public—investment, shipping, lay and press—on the plight of the nation's transportation spinal column. Since the hearings commenced, the public prints have been loaded with reports of pro and con testimony. Those favoring the freight rate increase, such as large holders of railroad securities—insurance companies for instance—have endeavored to create the impression that if the rise isn't granted, and promptly, resulting chaos will be something terrific. Those opposed—shippers, for example—appear firmly convinced that an increase will divert more freight traffic from the railroads, thus leaving the railroads worse off than they now are.

Assuming that there is a grain of truth in both views, it becomes a question whether the railroads actually want the increase or merely want to prepare the public and their employees for demands less likely to impair their earning capacity, namely: reduction in the wages of employees, and regulation of highway competitors.

Doubtless the ideal condition from the railroad standpoint would be strangulation of competition, reduction of wages and increase of freight rates. Such a miracle, however, is as unlikely of enactment by legislators and the I.C.C. as would be its toleration by the public. But some sort of relief must come from somewhere, which brings us to the strategic elements inherent in the rate increase petition.

If I.C.C. Says No?

If the I.C.C. credits the assertions of shippers that a rate increase would divert traffic to competitive transportation agencies,

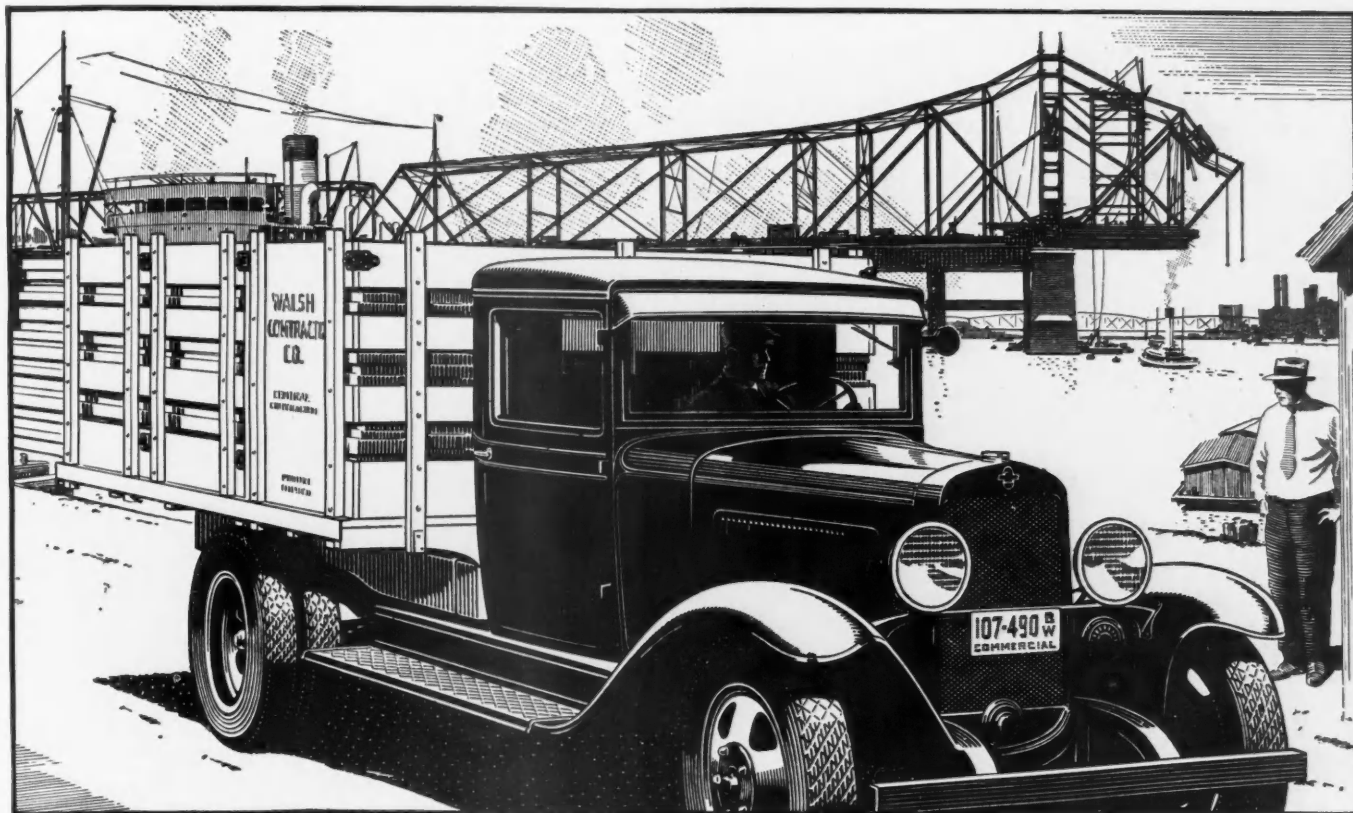
it will be the commission's duty to assume a protective attitude and refuse the request. It is our purely personal opinion that the I.C.C. will reject the proposal. Economy and elimination of waste are such absolute necessities in the conduct of business today that shippers will most certainly patronize the more economical forms of transportation in the event of a 15 per cent railroad rate increase. Even as a temporary expedient the increase would prove, in the long run, harmful to railroads because much of the traffic diverted would remain so after a return to present rates. Railroads know well now the difficulty of retrieving traffic that has strayed to competitors. The I.C.C. realizes this, too.

However, rejection of the petition would not end the matter because relief being necessary, would have to be sought elsewhere. Attention then would be focused on the railroads' competitors and on wage scales. And regulation and hamstringing of competitors being a matter not possible of accomplishment in time to relieve current distress, wage scales remain alone as a source of relief.

The Nigger in the Pile

And, in our opinion, wage scales are the objective of railroad strategy, the purpose of which is to enlist public opinion in the event of a dispute with the brotherhoods. In asking the brotherhoods to take a reduction in wages, the railroad excuse will be "we tried to get a freight rate increase and we tried to get protection from unregulated competitors; we failed." The "big four" brotherhoods will protest a reduction in wages. The railroads will protest that since their efforts to procure relief by other methods were frustrated, they have no alternative but to ask their workers to share with them their distress. A strike may ensue. Public opinion, we speculate, will be divided, but even the division will benefit the railroads. There will be the

TURN TO PAGE 44, PLEASE



1½-Ton 131-Inch Stake Truck—Body 108 by 82 inches, with 42-inch stakes. Price including body \$710. Dual wheels optional, \$25 extra.

Truck buyers appreciate Chevrolet's exceptional economy



Now, when economy is more than ever a requirement of truck buyers, Chevrolet dealers occupy a very advantageous position. For Chevrolet six-cylinder trucks, in addition to a low purchase price, provide the lowest operating cost of any trucks on today's market. And this economy record is all the more impressive because it is based directly on the testimony of Chevrolet owners themselves. Many write of getting 20 miles to the gallon or better from Chevrolet sedan deliveries, with relatively high mileage for the 1½-ton trucks. In the important matter of upkeep and repairs,

"20,000 miles without opening the engine," "Spent only \$1.50 for service," "Four months' driving, 30 cents repairs" are typical remarks of Chevrolet six-cylinder truck operators. As for long life, Chevrolet owners tell of Chevrolet trucks that have gone 50,000 miles or more and are still giving reliable service at low cost. This remark-

able economy, so amply substantiated, is a big factor in the excellent sales records of Chevrolet dealers. Combined with Chevrolet's durability, dependability and complete line of bodies, it gives the dealer an array of selling features unsurpassed in the low-price truck field.

**1½-ton chassis
with 131" wheelbase**

\$520

(Dual wheels optional, \$25 extra)

**1½-ton chassis with
157" wheelbase \$590**
(Dual wheels standard)

Commercial Chassis \$355

All truck chassis prices f. o. b.
Flint, Michigan. All truck body
prices f. o. b. Indianapolis, Ind.
Special equipment extra.

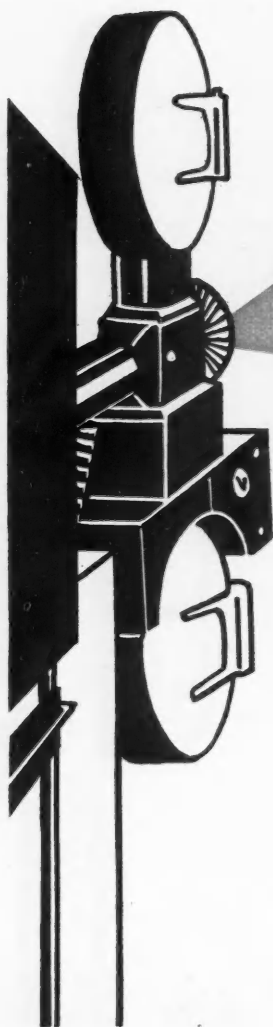
FOR LOWEST TRANSPORTATION COST

“DELIVERING 5000 MILES

A Modern Transportation Romance Featuring the Truck
Delivering Reels to 600 Theatres in 250 Towns in Three States

Staged by
Horlacker Delivery
Service, Inc.

Scenario by
Martin J. Koitzsch



LITTLE do movie fans, sitting comfortably in their chairs in pleasant surroundings enjoying a few hours of Will Rogers in "As Young as You Feel" today, Norma Talmadge in "Indiscreet" tomorrow, and "The Smiling Lieutenant" next day, realize that behind the very films bringing them such enjoyment is a story that matches in modern romance the best of the thrillers—a romance that is amazing even in this day and age of wonders—a romance featuring the motor truck, that indispensable factor in the life and welfare of our citizens, in the role of "Cheer Bringer."

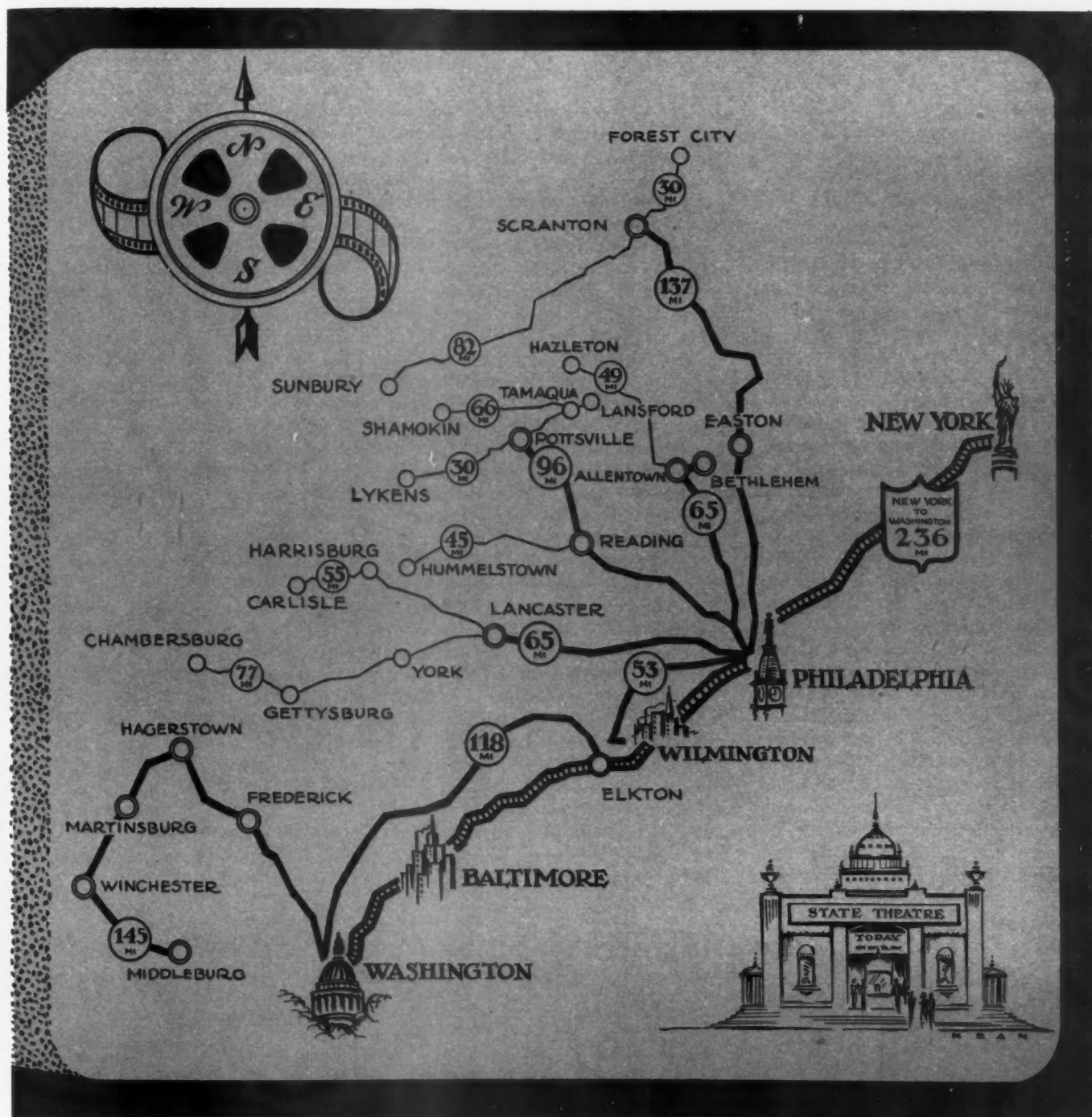
If a thrill-seeking, star-quoting, photo and autograph-gathering fan were to shadow the film of his delight through a couple of days of its vigorous itinerary and survive, only then would he succeed in obtaining an inkling of the tremendous story behind the film. He would get a glimpse of the more than 5000 miles of film rushing through in a week, a flash of 25,000 miles of highway spinning by, a peep into some of 600 theatres visited weekly, an idea of the bigness of a 250 city and town hook-up, and a suggestion of a smooth organization, working 24 hours a day, providing guaranteed daily deliveries. But for the comfortable delectation of the less hardy followers of the silver screen, *COMMERCIAL CAR JOURNAL* has shot the romance, "Delivering 5000 Miles of Film per Week," with the truck in a leading role. The truck and its equipment is the property of Horlacker Delivery Service, Inc., Philadelphia.

From the early days of movies when reel changes were irritating annoyances down to the early twenties of million-dollar productions, the handling of reels was largely the worrisome responsibility of movie houses. Movie operators did their own running down to movie-row, locating missing reels, picking them up, and trekking them back and forth—they were their own regular and special delivery-men. Of course, some theatres had cars for this purpose; in fact, some utilized the delivery service of local express companies. But today these

methods are just interesting history. Now, virtually every theatre in the Philadelphia area relies on trucks—trucks operated by a company that has set itself up to suit the special needs of movie houses, guaranteeing delivery of reels at any point on its many routes on schedule time, so that every show may go—ice, snow, sleet or rain notwithstanding.

The almost complete conversion of movie houses to use of the truck, and particularly to Horlacker service, was due to the flexibility, speed and economy inherent in every truck and to the highly specialized vocational facilities offered by Horlacker. Because of the truck, schedules, undreamed of a few years ago, have become practical. It has made possible the showing of a picture in Philadelphia one night; in Sunbury, 220 miles away, the next; Philadelphia again the third; Chambersburg, 140 miles west, the fourth—and so on. While this example is extreme, it serves to show how the truck saves thousands of dollars annually by cutting down idle film time, which, of course, redounds to the benefit of the distributor in faster playing dates per film. Instead of 120 showings in 250 days, Horlacker has made it possible to play a film 120 times in 150 days. And because of Horlacker service, which, besides being a transportation agency, is a sort of intermediary between exchange and movie house, worries regarding timely delivery of reels are about as rare as knee-length bathing suits in a beauty contest. The theatre is the customer and any and everything that Horlacker Delivery Service can do to simplify its patron's transportation requirements it does. To that end a list of bookings from a week to two weeks in advance is kept for every customer. This list enables the management to keep in close touch with daily deliveries and prevent slip-ups, such as duplicate programing, by detecting and correcting them in time. Another greatly appreciated angle of Horlacker service is furnishing transportation for any item of equipment related to the operation of a theatre such as posters, pro-

OF FILM PER WEEK



grams, carbons, lenses, fixtures, parts, cleaning equipment, deodorants, etc. Ordering and delivery of trailers for coming features is still another service assumed by the delivery agency.

Like a giant's hand, Horlacker's service spreads over a territory of approximately 200-mile radius, bringing in daily communication with Philadelphia some 600 theatres in more than 250 cities and towns. The hand represents a carefully plotted network of fixed routes and involves the

operation of 60 trucks, ranging from one to ten tons in capacity. The number and capacity of trucks traveling a given route depends on the size of the territory served.

To overcome the problem of ever lightening loads as the outer reaches of the territory are penetrated, and to obtain economical coverage of the more widely separated points in the outskirts, the management conceived the clever idea of graduating its routes much like a river with its tributaries,

but in reverse. There are 18 routes in all—seven main out-of-town routes, five operating out of Philadelphia and two out of Washington—ten auxiliary routes fed by the main routes, six local routes for Philadelphia exclusively and one special route extending from New York to Washington. All except the latter serve theatres. The New York-Washington route represents an independent operation and supplies bulk shipments to distributors or exchanges in Philadelphia and

"DELIVERING 5000 MILES OF FILM PER WEEK"

Washington. Three 10-ton trucks make this run every night.

All out-of-town trucks, barring mishaps and unfavorable weather and road conditions, are at the Vine Street headquarters every morning at 9 o'clock. They are stationed here and loaded for their evening runs, while drivers turn in for sleep. On all runs except one, drivers report for duty every night. The exception is Scranton, which, because of the greater distance, necessitates a relay system of two drivers, each working every other night. Responsibility of loading is assumed by a shipper and several assistants. These men assort the metal containers containing the reels and arrange them in the trucks for rapid delivery—the first shipment for delivery being packed in last, and so on.

Each truck leaves the garage at a set time, established according to the length of the route; the run to Scranton is scheduled at 3 p. m., to Pottsville at 9 p. m. and the remainder at 10. All trucks arrive at the various points along their routes at approximately the same time every night. This punctuality is especially desirable on main routes feeding trucks on auxiliary routes. For example, on the Pottsville run, the driver, delivering and picking up reels on the way up, reaches Reading about 12 o'clock, where he is met by the driver covering the Hummelstown auxiliary run. Because of the time schedule, an exchange of load can be made immedi-

ately and without loss of time to the main-run driver. Pick-ups from the Hummelstown territory are exchanged for new films, and the main-route driver continues to Pottsville, stopping, of course, at all the theatres on the way up. When he arrives at Pottsville, he is met by the drivers of two auxiliary routes—Lykens and Shamokin. Again a change of load is effected. The auxiliary drivers then carry on, making deliveries into the small hours of the morning, while the main-route driver, his deliveries complete, starts for home with his load of used films. All told, the Pottsville route represents a run of about 500 miles in one night—200 miles by main and 300 by auxiliary routes.

The Horlacker management prides itself for never having been late for a show and does everything within its power to maintain this record, even going to the extent of hiring a plane on one occasion. Besides building up a contented and smooth-functioning personnel, the management has achieved a system of control whereby every unit in its far-flung system can be brought into quick communication with the main office in case of emergency. It is because of the confidence this company has in its organization that it guarantees the appearance of all shows, promising to make good box-office losses in event of failure.

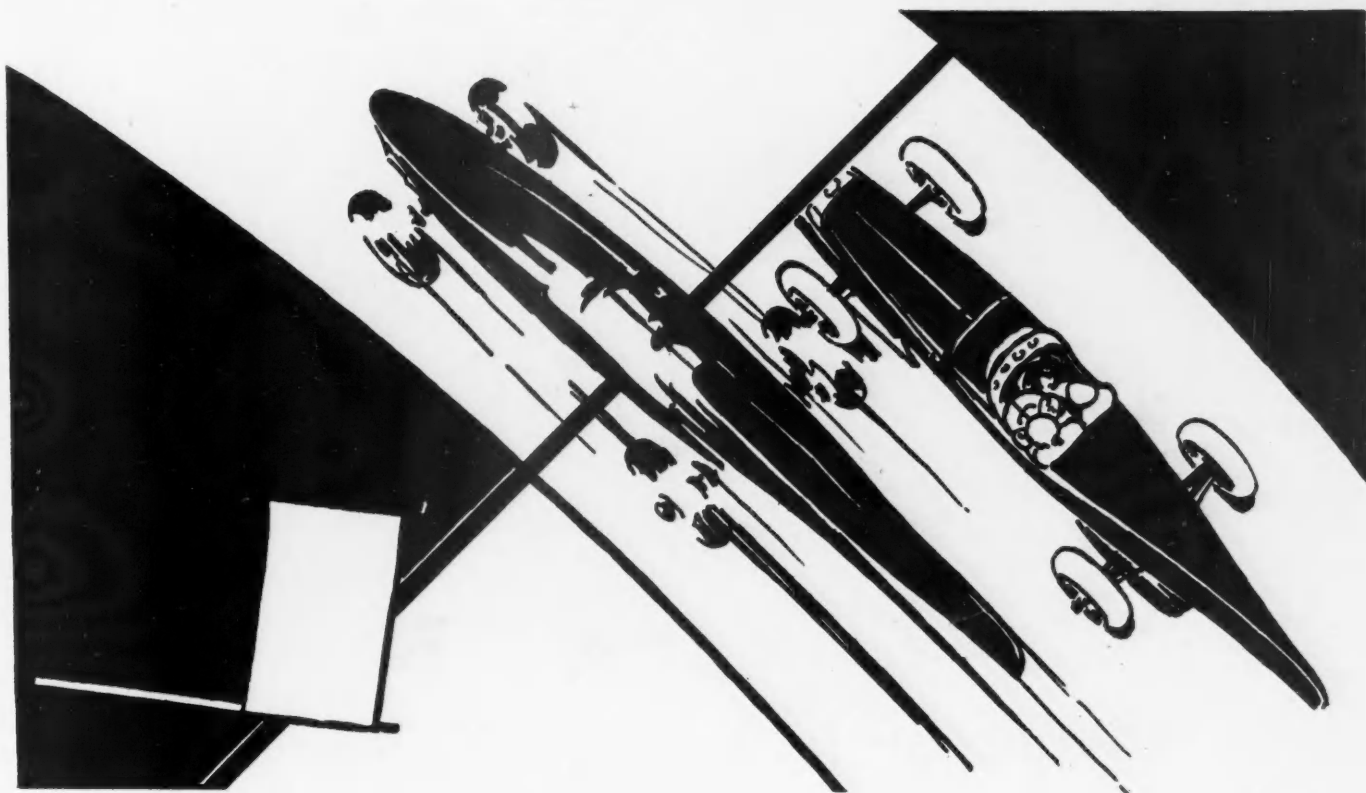
Drivers have never been a problem to the company, and turn-over could just as well be a special dessert on a la carte menu. There is none. The large majority of drivers on the Horlacker payroll have been there for years. They are men who feel the high regard in which the company holds its service and who appreciate

the responsibility vested in them. The explanation is no secret. "We just pay them well, treat them right and give them our confidence," is the way one executive expressed it. Personal contact, however, is a prime factor. Men and management know each other, they know each others' problems, and enjoy good fellowship. All drivers are bonded—shipments are valuable and each driver is furnished with a set of keys to admit them into the various theatres along their routes after show hours.

Control is based upon a system which records movements of the main-route drivers. As a result of experience, records and a clock-punching arrangement, the management has been able to plot a time schedule for every route. It knows that at 12.30 a. m. the Allentown truck will be in Quakertown, and at 1.30 a. m. in Bethlehem, and so on through all the routes. The clock system is similar to that used by night watchmen. Keys are placed in various theatres along the main routes and when a driver makes his delivery he punches a clock, which he carries, with one of these keys before locking up the theatre and departing. Time records obtained in this manner were studied and averages established. Drivers are allowed enough time to reach various key points without speeding—they are not pressed, 40 m.p.h. is the limit. Besides the clock system, a field superintendent makes the round of all routes once a month—not to seek trouble or criticize, but to give advice, straighten out road difficulties, lend a helpful hand when needed, keep in touch with road conditions generally and improve the service wherever possible.

Domestic New Truck Registrations by Makes and Months

	Autocar	Brookway-Ind.	Chevrolet	Diamond T	Dodge	Fagool	Fargo	Federal	Ford	G. M. C.	International	La France-Rep.	Mack	Moreland	Paige	Pierce-Arrow	Relay	Reo	Rugby	Schacht	Sterling	Stewart	Studebaker	White	Willys-Overland	Total Sales Including Miscellaneous
January..... 1931	223	154	7,569	167	1,183	23	31	111	11,313	447	1,325	28	225	16	27	3	13	273	32	15	6	84	297	221	159	24,415
January..... 1930	160	249	8,754	242	1,608	41	186	169	13,233	727	1,835	43	345	51	14	4	28	698	90	21	145	97	104	413	440	30,241
February..... 1931	177	107	7,459	135	1,129	31	36	100	10,868	388	1,368	34	184	12	20	4	28	261	30	11	47	85	268	204	184	23,466
February..... 1930	135	235	10,332	207	1,269	43	152	162	14,008	552	1,928	44	298	29	43	1	30	565	67	20	74	155	91	320	431	31,882
March..... 1931	121	151	9,396	144	1,363	15	28	123	14,731	454	1,881	36	287	17	29	9	18	308	30	10	57	119	362	207	283	30,609
March..... 1930	195	384	13,011	264	1,595	48	157	228	19,551	936	2,364	55	452	56	52	3	45	682	62	27	106	265	102	407	559	42,182
April..... 1931	155	215	11,195	236	1,575	33	17	150	17,755	590	2,295	58	344	19	20	18	42	354	31	21	104	166	381	228	346	36,848
April..... 1930	216	492	14,055	300	1,684	52	153	252	21,757	1,242	2,740	71	566	57	64	4	61	903	47	47	147	314	98	480	564	47,032
May..... 1931	155	190	9,932	260	1,492	24	13	170	15,675	543	2,382	40	355	19	18	17	38	306	20	16	101	175	426	254	421	33,496
May..... 1930	212	544	12,825	373	1,504	59	152	213	19,758	1,191	2,531	49	717	36	55	2	93	737	59	55	147	305	115	452	456	43,245
June..... 1931	179	144	8,970	240	1,285	37	14	144	12,448	513	2,078	45	294	11	24	18	29	466	20	25	59	136	288	267	351	28,496
June..... 1930	183	481	9,761	261	1,113	56	118	158	15,669	889	1,917	56	446	29	19	2	43	581	54	38	109	207	102	412	352	33,512
Total 6 Mos.. 1931	1,010	961	54,521	1,182	8,027	163	139	798	82,790	2,935	11,329	241	1,689	94	138	69	168	1,968	163	98	430	765	2,022	1,381	1,744	177,330
Total 6 Mos.. 1930	1,101	2,385	68,738	1,647	8,773	299	918	1,182	103,976	5,537	13,315	318	2,824	258	247	16	300	4,166	379	203	728	1,343	612	2,484	2,502	228,094
July..... 1931	136	143	9,539	304	1,251	32	12	151	12,932	728	2,282	58	288	22	9	12	34	648	18	4	71	129	301	233	355	30,100
July..... 1930	194	388	10,947	338	1,080	47	124	209	19,841	882	2,477	50	577	39	35	2	41	583	71	43	104	262	88	460	409	39,888
Total 7 Mos.. 1931	1,146	1,104	64,060	1,486	9,278	195	151	949	95,722	3,663	13,611	299	1,977	116	147	81	202	2,616	181	102	501	894	2,323	1,614	2,099	204,517
Total 7 Mos.. 1930	1,295	2,773	79,685	1,985	9,853	346	1042	1,391	123,817	6,419	15,792	368	3,401	297	282	18	341	4,749	450	251	832	1,605	700	2,944	3,211	267,982



M O M E N T U M

A Timely Thought on the Most Powerful Advantage a Concern May Have Over Its Competition

By NORMAN G. SHIDLE

Directing Editor
Chilton Class Journal Publications

BETWEEN now and Jan. 1, 1932, a few smart, courageous, fighting companies are going to jump the flag in the race back to business prosperity.

While their competitors are waiting for the tearing of a sheet from a calendar to metamorphose economic conditions, new pioneers in the automotive industry are going to ACT.

These go-aheaders have faced stark, crystal-clear reality. They see:

Wholesalers and retailers questioning the permanent stability of every line and every manufacturer with whom they are doing business;

Scores of trade buyers passing on from one to another strange, weird, silly rumor—sometimes about even the oldest and strongest companies in the business;

Hundreds of sensible retailers wavering in their belief in the

soundest of projects; hungry for leadership; ready to form new allegiances; eager to cry "Hail" to the industrial organization which moves with dominant strength.

Opportunity is wide open between now and Jan. 1, 1932, for new firms to seize or old firms to consolidate leadership in each branch of the automotive industry. Some men see that chance clearly—and will grasp it.

While their competitors are reefing sail still further, "until after the first of the year," listlessly, penuriously, fearfully hoping that a change in date on the calendar will in some mysterious way bring a change in their fortunes—while the great herd of business men are toasting their toes before a dimming fire—

These new pioneers are going to use these three vital, opportunity-filled months to advertise to the trade—to

contact with the trade—to write to the trade—to fill the trade with a vitalized vision of the everlasting power and courage of their plans, their organizations, their methods and their purposes.

They will reach the trade in its most receptive mood and when it is less crowded than ever before with competitive messages.

They are going to stand out like tall pines towering high in a forest of weeping willows.

They are going to be conspicuous in their activity, sound in their judgment and far-visioned in their planning.

And when that subtle thing called the tide of business suddenly is found to have turned they will have just the advantage that a man doing a running broad jump has competing for dis-

TURN TO PAGE 48, PLEASE

EVERY safety program, whether conducted by a large or small fleet operator, to be really efficient and bring the maximum return for the time, effort and money expended, must be backed by a good system of accident recording. Without such a system everything becomes guesswork—management does not know its accident cost, per month or year; total accident repair bills are approximations; insurance premiums and claims hit indefinite totals; interesting campaign material for creating and maintaining interest is not available; driver instruction and advice cannot be anything but weak and hollow; bonus plans and contests are impractical, etc. To do an intelligent job of preventing accidents and their repetition, the causes of accidents must be known. Carefully and accurately kept records reveal them—records that give all the information upon every accident, no matter how trivial.

The National Safety Council, Inc., Chicago, known for its outstanding work in gathering data and shaping procedure for accident prevention, has developed an accident record sys-



HOW TO KEEP AND USE ACCIDENT STATISTICS

tem for commercial vehicle operators that applies with equal simplicity to large or small fleets. The plan, designed to keep clerical work down to a minimum and yet provide full information, consists of three important steps:

1. A written record of all vital facts bearing on causes and circumstances of each accident.
2. A periodic summary and analysis of these accident data, and comparisons from one period to another and between various divisions of a fleet.
3. Comparisons with records of other fleets.

Three forms, illustrated herewith, are employed in the recommended plan. They cover every statistical detail, are readily understood and easily applied to any operation. For the original report of an accident the form, "Vehicular Accident Report," is provided; the "Accident Record Sheet" is supplied for summarizing the items listed on the first form, and the third form, "Vehicular Accident Summary Report," is furnished to compile the data from one or more of the record sheets.

Before discussing these various forms and

their relation to each other it should be remembered that success depends to a considerable degree on the human equation and the obtaining of all facts on every accident. False conclusions drawn from incomplete and inexact accident data result in misdirected and wasted safety activity. Since the driver, for the most part, must be relied upon for a description of an accident, he should be impressed with the importance of getting complete unbiased information about every accident, no matter how trivial. He can easily be made to realize the importance of reporting a serious accident, but he must also be made to realize that, from the standpoint of preventing accidents, valuable information can be obtained from minor occurrences; that circumstances involved in a minor accident may be the same as in a major one; that false damage claims often follow minor accidents, etc. Neglect in reporting accidents and the making of evasive and misleading

statements should not be tolerated. This policy should be brought home to the driver in a friendly, but firm, business-like manner and, if necessary, enforced by penalty. Executives can go a long way in impressing the driver of the value attached to his reports by carefully scrutinizing his statements and by close questioning on various entries.

The "Vehicular Accident Report" (Figs. 1 and 2), while primarily designed for accident prevention purposes, possesses two other advantages. First, since the form incorporates standard items required by insurance companies, many leading carriers are willing to accept reports on this form in lieu of their regular forms. Secondly, inasmuch as the information furnished is approxi-



ACCIDENT STATISTICS TELL:

What type of accident occurs most frequently.

Where most accidents happen.

What actions of drivers are involved in most accidents.

What conditions of road, weather or light figure most prominently in accidents.

What personal injuries or property damage result from accidents.

What should be done to eliminate causes.

What success has been achieved in reducing outstanding causes.

Which employees are accident-prone.

ACCIDENT STATISTICS AID:

In developing strong, promotional material, packed with solid facts.

In directing attention where it should be concentrated.

In keeping up interest by announcing steps of progress.

In making accurate accident cost comparisons, periodically.

In measuring effectiveness of program with other similar organizations.

In conducting contests and bonus plans.



VEHICULAR ACCIDENT REPORT

Form No. V-1 National Safety Council

Company J. M. White & Co. Address 1700 N. Madison, Chicago

Date of Report 1-1-31

(If sufficient space for any of your answers is not provided on this form, please continue each answer on sheet of plain white paper and attach to this report.)

Company Vehicle No. 100 Type of Body Truck Motor No. 43607M License No. 121-76174

Years Operated 20,500 Capacity 2 tons

Driver's Name George Oliver Address 1700 W. State Age 32

Date 1-9 at 3:30 P. M. On Madison (Street or Rural Highway)

At Jackson (Intersecting street, house number or highway location.) In Chicago (City or County) (State)

Check X One Which Was Also Involved

a. Pedestrian ☐ d. Electric Car ☐ g. Fixed Object ☐

b. Other Motor Vehicle ☒ e. Bicycle ☐ h. Non-Operating ☐

c. Railroad Train ☐ f. Horse Drawn Vehicle ☐ i. Non-Collision ☐

Who Was Injured?

1. No one hurt

Injured Taken To: _____ By _____

Name of Doctor Called: _____ Address _____

Who Was the Other Driver?

Name Harry Gustafson Address 7100 W. Clark, Chicago

Make of His Car Buick Model Sedan Motor No. 145678

His License No. 199-870 His Driver's License No. None

What Damage Resulted?

To the Other Vehicle or Property Smashed radiator and fender Estimated Cost \$50

To Our Vehicle Smashed running board and door and broke windshield Estimated Cost \$25

Who Saw the Accident?

1. Miss August Beck 50 2100 W. Jackson, Chicago

2. Sealed Matsen 21 4817 W. Division

3. Robert Smith 17 1800 N. Davis, Evanston

Policeman Present? Name None Badge No. ✓

1. Draw Heavy Lines to Show Streets.

2. Enter Street Names and House Numbers.

3. Show Direction of Travel.

4. Show Point of Collision and Positions of Cars Before and After Accident.

5. Show Important Measurements.

Indicate on This Diagram What Happened

(Fill Out Reverse Side)

CIRCUMSTANCES INVOLVING VEHICLE AND DRIVER

(Check with X Each Item That Applies)

MOVEMENT OF VEHICLE	Vehicle Our	Vehicle Other
a. Turning right		
b. Turning left		
c. Going straight through	X	X
d. Slowing down or stopping		
e. Backing		
f. Parked or standing still		
g. Shifting		
h. Rear-end collision		

ACTION OF DRIVER	Vehicle Our	Vehicle Other
a. Exceeding speed limit		X
b. On wrong side of road		X
c. Didn't have right of way		
d. Cutting in		
e. Passing standing street car		
f. Passing on a curve or hill		
g. Passing on wrong side		
h. Failed to signal		

CONDITION OF DRIVER	Vehicle Our	Vehicle Other
a. Intoxicated		
b. Physical defect		
c. Asleep		

CONDITION OF VEHICLE	Vehicle Our	Vehicle Other
a. Defective brakes		
b. Improper lights		
c. Defective steering gear		
d. Tire puncture or blowout		
e. Other defects		

OTHER CIRCUMSTANCES OF THE ACCIDENT

(Check With X Each Item That Applies)

LOCATION ON HIGHWAY	Vehicle Our	Vehicle Other
a. At intersection		X
b. At R. R. crossing—unguarded		
c. Same—guarded by watchman or gate		
d. Same—guarded by automatic signal		
e. At bridge or underpass		
f. On curve		
g. On hill		
h. On straight level road		
i. Other		

ROAD SURFACE CONDITIONS	Vehicle Our	Vehicle Other
a. Dry		X
b. Wet		
c. Muddy		
d. Snowy		
e. Icy		

ROAD DEFECTS	Vehicle Our	Vehicle Other
a. Road under repair		
b. Obstruction not lighted		
c. Other		

WEATHER CONDITIONS	Vehicle Our	Vehicle Other
a. Clear		
b. Cloudy		X
c. Fog		

Add any other details here Large druggery west on Jackson and forgot they was a stop sign at Madison. It was cloudy and I couldn't see the sign very well. Just as I got into the intersection the other car hit me.

Hours you were on duty before accident? 7 Years in employ of this company? 2

How many accidents have you had while in our employ? 1 How many this year? 1

Counter-signed Jesse Blackston Driver's signature George Oliver

(Seal of Inspector or Inspector) Chauffeur's or Driver's License No. ✓

Fig. 1—The driver fills out this form. On the reverse side, at right, the complete story of the accident is told by check marks

VEHICULAR ACCIDENT RECORD SHEET

(Use a separate sheet to report each type of vehicle operated)

Company J. M. White and Company Division All divisions Type of Vehicle Truck Period Covered 9-1-30 to 8-31-31

Table I—DRIVERS' RECORDS

Accident No.	Driver's Name	Date	Years in Service of Company	Years on Duty Before Accident	Number of Accidents This Year	Accident No.	Driver's Name	Date	Years in Service of Company	Years on Duty Before Accident	Number of Accidents This Year
1	J. M. Oliver	7-15-30	2	2	1	17	R. D. Hopper	7-21-30	1	1	1
2	A. T. Thompson	7-22-30	3	3	1	18	C. A. Appleton	8-1-31	2	2	1
3	John Wilson	7-28-30	5	5	1	19	C. A. Appleton	8-1-31	2	2	1
4	C. O. Chapman	7-31-30	1	1	1	20	C. A. Appleton	8-1-31	2	2	1
5	George Oliver	8-11-30	2	2	1	21	J. M. Oliver	7-21-30	2	2	1
6	George Oliver	8-15-30	2	2	1	22	C. A. Appleton	8-1-31	2	2	1
7	C. O. Chapman	8-18-30	1	1	1	23	C. A. Appleton	8-1-31	2	2	1
8	C. O. Chapman	8-22-30	1	1	1	24	C. A. Appleton	8-1-31	2	2	1

Table II—CIRCUMSTANCES CONNECTED WITH THE ACCIDENT

CIRCUMSTANCE OR CONDITION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total
A. GENERAL LOCATION																									
a. Intersecting	X																								1
b. Same Street																									0
c. Railroad Crossing																									0
d. Same Street																									0
B. TYPE OF ACCIDENT																									
a. Pedestrian	X																								1
b. Other Motor Vehicle																									0
c. Railroad Train																									0
d. Horse Drawn Vehicle																									0
e. Fixed Object																									0
f. Non-Operating																									0
g. Non-Collision																									0
C. RESULT OF ACCIDENT																									
a. Fatal																									0
b. Other Personal Injury (no death)																									0
c. Property Damage Only	X																								1
D. MOVEMENT OF VEHICLE																									
a. Turning Right	X																								1
b. Turning Left																									0
c. Going Straight Through																									0
d. Slowing Down or Stopping																									0
e. Backing																									0
f. Parked or Standing Still																									0
g. Shifting																									0
h. Rear-End Collision																									0
E. ACTION OF DRIVER																									
a. Exceeding Speed Limit																									0
b. On Wrong Side of Road																									0
c. Didn't Have Right of Way																									0
d. Cutting In																									0
e. Passing Standing Street Car																									0
f. Passing on Curve or Hill																									0
g. Passing on Wrong Side																									0
h. Failed to Signal																									0
i. Improper Turning																									0
j. Failed to Observe Stop Sign																									0
k. Disregarded Officer or Signal																									0
l. Disregarded Slow or Warning Sign																									0
m. Drove Off Roadway																									0
n. Drove Through Safety Zone																									0
o. Double or Reckless Parking																									0
F. CONDITION OF DRIVER																									
a. Intoxicated																									0
b. Physical Defect																									0
c. Asleep																									0
G. CONDITION OF VEHICLE																									
a. Defective Brakes																									0
b. Improper Lights																									0

Table III—Summary for Period from 9-1-30 to 8-31-31

Average Number of Vehicles Operated	Total Vehicle-Miles Operated	Total Vehicle-Hours Operated	Total Number of Accidents	Mileage Frequency Rate—Accidents per 100,000 Vehicle-Miles	Hourly Frequency Rate—Accidents per 100,000 Vehicle-Hours
4.1	650,000	82,000	25	3.8	1.69

COMMERCIAL VEHICLE ACCIDENT STATISTICS

Table I—DRIVERS' RECORDS

Accident No.	Driver's Name	Date	Years in Service of Company	Years on Duty Before Accident	Number of Accidents This Year
1	J. M. Oliver	7-15-30	2	2	1
2	A. T. Thompson	7-22-30	3	3	1
3	John Wilson	7-28-30	5	5	1
4	C. O. Chapman	7-31-30	1	1	1
5	George Oliver	8-11-30	2	2	1
6	George Oliver	8-15-30	2	2	1
7	C. O. Chapman	8-18-30	1	1	1
8	C. O. Chapman	8-22-30	1	1	1

Table II—CIRCUMSTANCES CONNECTED WITH THE ACCIDENT

CIRCUMSTANCE OR CONDITION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total
A. GENERAL LOCATION																									
a. Intersecting	X																								1
b. Same Street																									0
c. Railroad Crossing																									0
d. Same Street																									0
B. TYPE OF ACCIDENT																									
a. Pedestrian	X																								1
b. Other Motor Vehicle																									0
c. Railroad Train																									0
d. Horse Drawn Vehicle																									0
e. Fixed Object																									0
f. Non-Operating																									0
g. Non-Collision																									0
C. RESULT OF ACCIDENT																									

VEHICULAR ACCIDENT SUMMARY REPORT

Form No. Veb. 3
Compiled for

National Safety Council, Inc., Civic Opera Building, 20 North Wacker Drive, Chicago, Ill.

Company T.M. White & Co. Period Covered 9-15-30 to 9-31-31

Address 1700 N. Madison, Chicago Date 4-1-31

Person Making This Report J. B. White Title Vice-Pres.

Use a Separate Sheet to Report Each Type of Vehicle Operated

Type of Vehicle Covered by this Report Trucks
(Trucks, Buses, Passenger Cars, Trucks, Electric, Motor-driven)

Nature of Business Transfer and Trucking
(Lumber, Building, Baking, Freight, etc.)

TABLE I—ACCIDENT RATES

1. Average Number of Vehicles of This Type in Regular Operation During the Period. (If the number of vehicles operated varies in different months, add the number in regular operation for each month during the period and divide by the number of months.) See Note 1, below.	41
2. Total Number of Vehicle-Miles Operated During the Period. (If possible, calculate from actual mileage records of all trucks. Otherwise, multiply the average number of vehicles in operation by the number of working days during the period, and then multiply that product by the average number of miles vehicles operate daily.)	650,520
3. Total Number of Accidents All Types. See Note 1, below.	24
4. Number of Accidents per 100,000 Vehicle-Miles. (Multiply item 3 by 100,000 and divide by item 2.)	3.69
5. Number of Vehicle-Hours Operated During the Period. (If possible, enter this item in addition to item 2.)	67,665
6. Number of Accidents per 100,000 Vehicle-Hours. (Multiply item 3 by 100,000 and divide by item 5.)	35.47

Notes on Table I

1. Item 1, as indicated above, should include vehicles of only one type. Other sheets should be used to report all mechanically propelled or horse-drawn vehicles operating on streets and highways, whether used in carrying goods, employees, or the general public.

2. A Vehicular Accident for this report shall be:—Any accident in which the vehicle is involved, whether in motion, temporarily stopped, parked, or being loaded or unloaded, which results in (1) Death, (2) Other Personal Injuries (no deaths), or (3) Property Damage Only, regardless of who was hurt, what property was damaged, or who was responsible.

Accidents to machinery in company garages are not reportable. Thus, a crashcase crumple the foot of a mechanic while he is repairing an engine. Accident is not reportable on this form.

Accidents to drivers and helpers not involving the vehicle, itself, are not reportable. Thus, if a driver going upstairs to deliver a package, falls and breaks his wrist, the accident is not reportable. However, had he broken his wrist when stepping off the running board of his truck, the accident would have been reportable.

TABLE II—RECORDS OF DRIVERS IN ACCIDENTS

(If you are using the Council's "Vehicular Accident Record Sheet" for accident recording, totals may be taken directly from it and entered in Tables II and III. If you are using another accident recording plan which provides you with the information requested, please enter it in Table II. Item A—Total and Item B—Total should each equal the total of all accidents.)

A. EXPERIENCE—Total	24	B. HOURS ON DUTY BEFORE ACCIDENT—Total	24
a. Less Than 6 Months	2	a. Less Than Three Hours	4
b. Six Months to 1 Year	2	b. Three to Six Hours	10
c. One to Two Years	8	c. Six to Nine Hours	10
d. Two to Four Years	9	d. Nine Hours and Over	—
e. Four Years and Over	5	C. NUMBER OF DRIVERS—More Than One Accident	4

(Please Enter Data for Table III—Reverse Side)

TABLE III—CIRCUMSTANCES OF ACCIDENTS

(In Table III the total entries under each of A, B, C, H, I, K and L should equal the total number of reported accidents. For Schedules B, R, F and G, enter totals for ONLY your driver or vehicle, not the other driver or vehicle. In Schedule D there should be an entry for every company driver. Schedules M and N apply to pedestrian accidents only.)

A. GENERAL LOCATION		d. Tire Puncture or Blowout	1
a. Business District	2	e. Other Defects	—
b. Residential District	—	H. LOCATION ON HIGHWAY	11
c. Rural District	—	a. At Intersection—Unprotected	1
B. TYPE OF ACCIDENT	3	b. At R. R. Crossing—Unprotected	—
a. Pedestrian	10	c. Some—Controlled by Watchman or Gate	—
b. Motor Vehicle	1	d. Some—Controlled by Automatic Signal	—
c. R. R. Train	1	e. At Bridge or Underpass	1
d. Electric Car	1	f. On Curve	2
e. Bicycle	1	g. On Hill	—
f. Horse-drawn Vehicle	1	h. On Straight Level Road	6
g. Fixed Object	1	i. Other	—
h. Non-Collision Operating	2	I. ROAD SURFACE CONDITION	19
i. Non-Operating	—	a. Dry	4
C. RESULT OF ACCIDENT*	1	b. Wet	2
a. Fatal	1	c. Muddy	—
b. Other Personal Injury (no death)	15	d. Snowy	3
c. Property Damage Only	—	J. ROAD DEFECTS	1
D. MOVEMENT OF VEHICLE	3	a. Road Under Repair	—
a. Turning Right	2	b. Obstruction Not Lighted	1
b. Turning Left	1	c. Other	—
c. Going Straight Through	—	K. WEATHER CONDITIONS	11
d. Moving Down or Stopping	—	a. Clear	—
e. Backing	2	b. Cloudy	2
f. Parked or Standing Still	1	c. Fog	—
g. Hitting	—	d. Rain	2
h. Rear-End Collision	—	e. Snow	—
E. ACTION OF DRIVER	5	L. LIGHT CONDITIONS	14
a. Exceeding Speed Limit	1	a. Daylight	8
b. On Wrong Side of Road	1	b. Dark	3
c. Didn't Have Right of Way	1	c. Darkness—No Street Lights	3
d. Cutting In	1	d. Darkness—Good Street Lights	1
e. Passing Stopping Street Car	1	e. Darkness—Poor Street Lights	—
f. Passing on Curve or Hill	1	M. ACTION OF PEDESTRIAN	1
g. Passing on Wrong Side	—	a. Crossing at Intersection with Signal	1
h. Failed to Signal	—	b. Some—Against Signal	—
i. Improper Turning	1	c. Some—No Signal	—
j. Failed to Observe Stop Sign	—	d. Some—Diagonally	—
k. Disregarded Officer or Signal	—	e. Crossing Between Intersections	—
l. Disregarded Slow or Warning Sign	—	f. Playing or Working in Street	—
m. Drove Off Roadway	—	g. Riding or Hitching on Vehicles	—
n. Drove Through Safety Zone	—	h. Getting On or Off Street Car	—
o. Double or Prohibited Parking	—	i. Not in Roadway	—
F. CONDITION OF DRIVER	1	j. Other	—
a. Intoxicated	—	N. CONDITION OF PEDESTRIAN	1
b. Physical Defect	—	a. Physical Defect	—
c. Asleep	—	b. Confused by Traffic	—
G. CONDITION OF VEHICLE	2	c. View Obstructed	—
a. Defective Brakes	—		—
b. Improper Lights	—		—
c. Defective Steering Gear	2		—

*Accidents involving "Other Personal Injuries" as well as "Fatal" are classified "Fatal"; accidents involving "Other Personal Injuries" as well as property damage are classified "Other Personal Injuries."

Remarks Intoxicated driver was immediately discharged. At present we are making a drive to keep trucks in good condition, and to prevent speeding.

Fig. 3—Accidents summarized regularly on this form make accident prevention simpler. The information is taken directly from the Accident Record Sheet

mately the same as required by state motor vehicle bureaus, employers using this accident report will experience little difficulty in making out compulsory state reports.

Both sides of this 8½ x 11 in. sheet are used and together give a complete story of an accident. The front contains important details of legal significance such as names of the persons injured, names of witnesses, license numbers, a diagram showing position of vehicles at the collision point and other data required by insurance companies to fix responsibility. The illustration of the front side of the form (Fig. 1) is self-explanatory, except possibly the section, "Check One Which Was Also Involved." A "non-collision operating" accident refers to one in which only the vehicle is involved, such as running off the road without colliding with another vehicle or fixed object. A "non-operating" accident may be illustrated by a box falling from truck while being loaded, injuring some person. The reverse side of the form contains an outline of circumstances involving vehicle and driver. Such important details as direction of travel of each vehicle, action of each driver, weather conditions, etc., is reported by check marks. The items under "Action of Driver" are very important because they repre-

sent violations of good driving practice and must be obtained despite the difficulty of getting the driver to admit his responsibility.

In connection with the getting of information for these reports drivers should be instructed to be courteous to the other party, to keep his temper and above all keep a clear head. Subsequent trouble will also be avoided if the driver refrains from taking blame or accusing another of negligence.

When an accident report has been made and carefully checked it should be filed for subsequent compiling. Such summaries may be made every one, two or three months, depending largely on size of the organization. Reports may be filed by divisions, or garages, if the company operates more than one; by type of vehicle, if more than one type is operated; or in any way which appears best in the judgment of the official in charge of safety. The sheet on which the individual accident reports are summarized is the Vehicular Accident Sheet (Fig. 2). The items on this 17 x 22 in. sheet are listed in order corresponding to those on the report sheet to simplify tabulation. One column on the record sheet is used for each accident and one record sheet will ordinarily take care of a fleet of 25 to 40 vehicles for a period of three months.

A separate sheet should be used to record the accident experience of each type of fleet operated because conditions connected with accidents vary in importance with different types of vehicles. Vehicles should be classified as follows: trucks, electric trucks, passenger cars, buses, taxicabs, and horse-drawn vehicles.

Procedure of entry is self-evident as an examination of both forms reveal. The only instance where information is not taken from the driver's report is in the case of the accident number, which, as a matter of fact, is taken from the record sheet and placed in the upper left corner of the front side of the driver report sheet. Thus the number 1-13 in Fig. 1 means that it was accident No. 13 on Record Sheet No. 1 (Fig. 1). The same number is used on another 2¼ x 4¼ in. card, the Drivers' Accident Record Card, which is an auxiliary accident record of each driver. This card is particularly valuable for checking up accidents of individual drivers to determine disciplinary measures, proneness to accidents and when a bonus system for no-accident records or safety contests are used.

The Vehicular Accident Summary Report (Fig. 3) is the third form of the series and is used to summarize

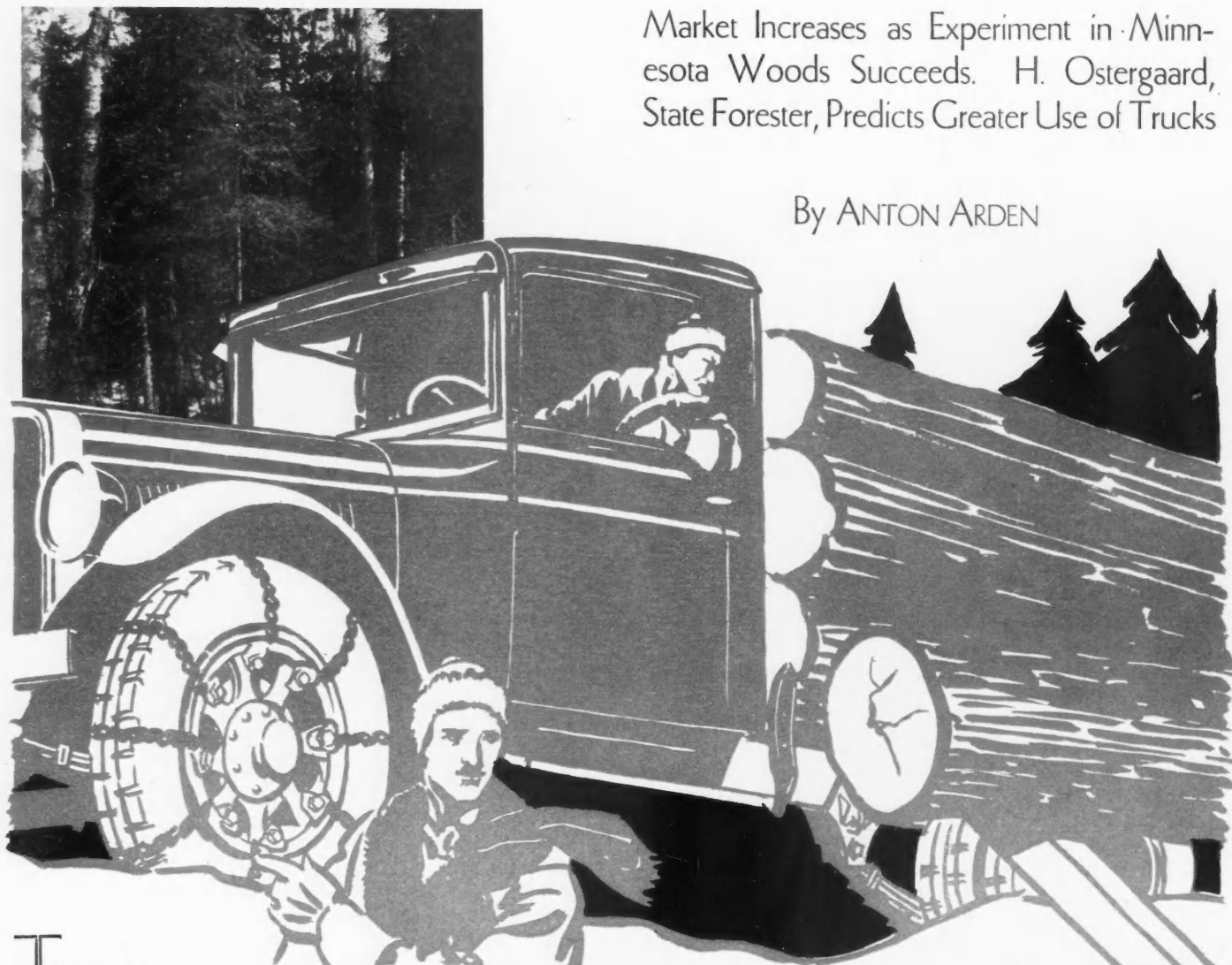
TURN TO PAGE 46, PLEASE



LOGGERS HOT FOR TRUCKS FOR WORK ON ICE ROADS

Market Increases as Experiment in Minnesota Woods Succeeds. H. Ostergaard, State Forester, Predicts Greater Use of Trucks

By ANTON ARDEN



TRUCK salesmen may now look for an increased market among logging operators.

Trucks, tractors and trailers have long been used in the woods for hauling logs and pulpwood from the area in which the timber is cut to the nearest railroad. Such hauling has been done in most cases on graded dirt or gravel roads constructed and used for other purposes besides logging.

But an experiment in which trucks were used to haul logs over ice-surfaced logging roads—roads that were built for logging purposes only—demonstrated that the truck

can be used successfully in a particular job that hitherto has been left to the horse-drawn or caterpillar tractor-drawn sleigh.

The experiment took place in Cook County, Minnesota, in the winter of 1930-31. And the reason for its success lies in the fact that a truck and trailer load of logs can move up and down steep grades while a horse-drawn sleigh-load of logs cannot—or only with perilous, expensive difficulty. Here is the story of the experiment, a North Woods logging operator's problem, and how he solved it.

Having cut his logs, the operator must haul them from the cutting area to the nearest accessible point (the landing) on the railway on which the logs will travel to the mill. Obviously, the shorter the haul from the cutting area to the land-

ing area, the better; but sometimes the shortest way is up and down hills. And if the short road is a steep, uphill grade, then horse teams cannot pull sleigh-loads up it. On the other hand, if the road is a steep, downhill grade, horse teams have equal difficulty in keeping loaded sleighs from sliding down too fast.

Hay, placed in the ruts, has been used for braking, but is unsatisfactory as it sometimes rolls under the runners and the sleighs slip out of control. Moreover, the hay must be shaken free of ice and replaced in the ruts after every passage.

TURN TO PAGE 36, PLEASE

Changing oil in cranks can prove troublesome in large fleet operations unless brought under proper control. If left to chance, oil, new and old, is wasted, time is lost and trucks are delayed.

When management gives thought to the problem, an installation like the one here outlined results. Everything is automatic. The only labor involved is that of removing and replacing of crankcase drain plugs and refilling from a nozzle. There is no shoulder squirming under trucks and oil has no more chance to escape than a handcuffed prisoner.

A CAREFUL study and check, extending over a period of months, and supported by a complete system of charts and records, demonstrated that we could use an oil of 80-86 viscosity at 210 deg. F., winter and summer, and use the same oil in all of our equipment, from the lightest delivery truck to the heaviest trailer job.

After we had established the fleet, we were then confronted with the problem of reclaiming lubricating requirements of the oil. We experimented over a period of years with this problem and were able to produce an oil that was satisfactory, but it was found that it required a great deal of labor and attention, which rendered it impractical. As time went on and our fleet of trucks increased, our problem of crankcase draining

increased with it. After some study and thought, we designed our present plan, incorporating a draining pit, and a complete system for draining, settling, reclaiming oil and refilling cranks.

Procedure for draining and refilling is as follows:

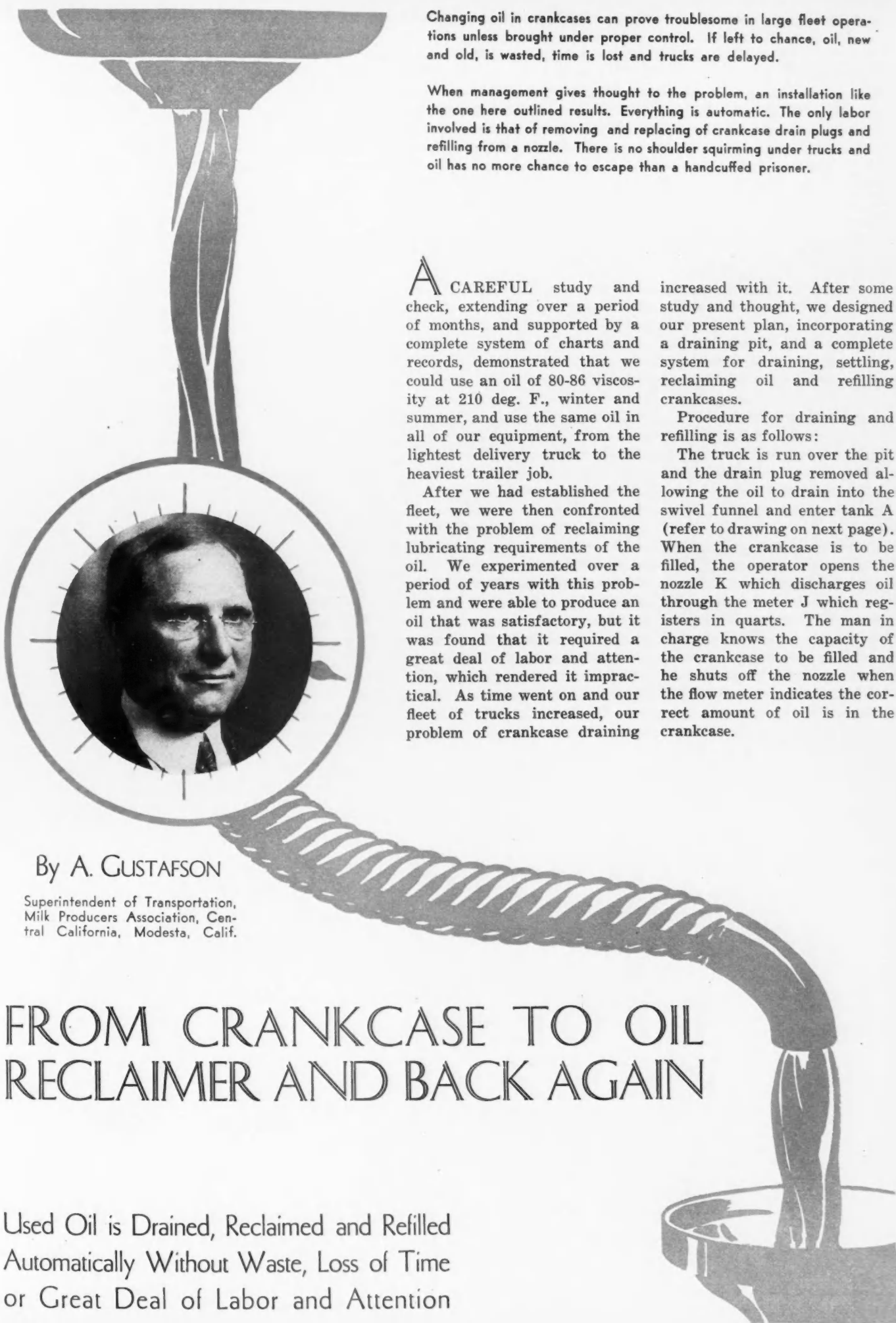
The truck is run over the pit and the drain plug removed allowing the oil to drain into the swivel funnel and enter tank A (refer to drawing on next page). When the crankcase is to be filled, the operator opens the nozzle K which discharges oil through the meter J which registers in quarts. The man in charge knows the capacity of the crankcase to be filled and he shuts off the nozzle when the flow meter indicates the correct amount of oil is in the crankcase.

By A. GUSTAFSON

Superintendent of Transportation,
Milk Producers Association, Cen-
tral California, Modesta, Calif.

FROM CRANKCASE TO OIL RECLAIMER AND BACK AGAIN

Used Oil is Drained, Reclaimed and Refilled Automatically Without Waste, Loss of Time or Great Deal of Labor and Attention



FROM CRANKCASE TO OIL RECLAIMER AND BACK AGAIN

Oil from the drain tank A is forced out by air pressure through the master strainer B. This strainer is a piece of tubing 6 ft. long by 6 in. diameter with an inner strainer formed of five tubes filled with $\frac{1}{2}$ in. holes and covered with loose burlap. After leaving the strainer B the oil passes through a flow meter and is discharged, alternately, into settling tanks C or D. Each tank has a capacity of 500 gal. and is heated by exhaust steam available from our plant. The tanks are provided with conical bottoms and drain valves. Oil passes off at a point well above the bottom of the tank, thus providing a sump for settling.

Oil flows by gravity from these settling tanks, through another strainer, which is pre-heated and then flows into a Senior Model Skinner Reclaimer F. The reclaimed oil flows by gravity into the renewed oil tank G. Placed on top of this tank G is a small, electrically-driven discharge pump. The motor on the pump is operated by the nozzle K.

Directly over the receiving tank G is a container for new oil. No attempt is made to control the amount of new and used oil, and new oil is filled into tank G as required.

The use of pre-heated settling tanks, of large capacity, insures the precipitation of practically all the heavy suspended materials, and this, coupled with the arrangement of strainers, cleans the oil before it reaches the re-

claimer. The filter pads in the reclaimer finish the work, and the electrically heated chamber of the reclaimer removes the light ends so that reclaimed oil is equal to new oil as far as body or viscosity is concerned when it reaches the tank G. This layout makes possible the reconditioning of used oil at a minimum cost per gallon.

Practically all the material used in this system, with the exception of the reclaimer itself, can be bought second-hand and it makes no particular difference if the capacity of the storage and receiving tank varies from amounts given.

If exhaust steam is not available for heating the drained oil in the settling drums, small electrical heating units can be used. It is highly desirable to heat the oil in the settling tanks to about 125 deg. F., which gives a precipitation twice as much as that from oil at atmospheric temperature.

LOGGERS HOT FOR TRUCKS FOR WORK ON ICE ROADS

CONTINUED FROM PAGE 34

Because of these difficulties, longer roads are sometimes built to avoid the steep grades, or caterpillar tractors are used instead of horses. But either method is expensive.

J. C. Campbell, Jr., who took a contract to deliver all the timber on certain lands to the General Logging Co.'s railroad in Cook County, Minnesota, was confronted with this transporting problem. When he started on the contract he proceeded in the con-

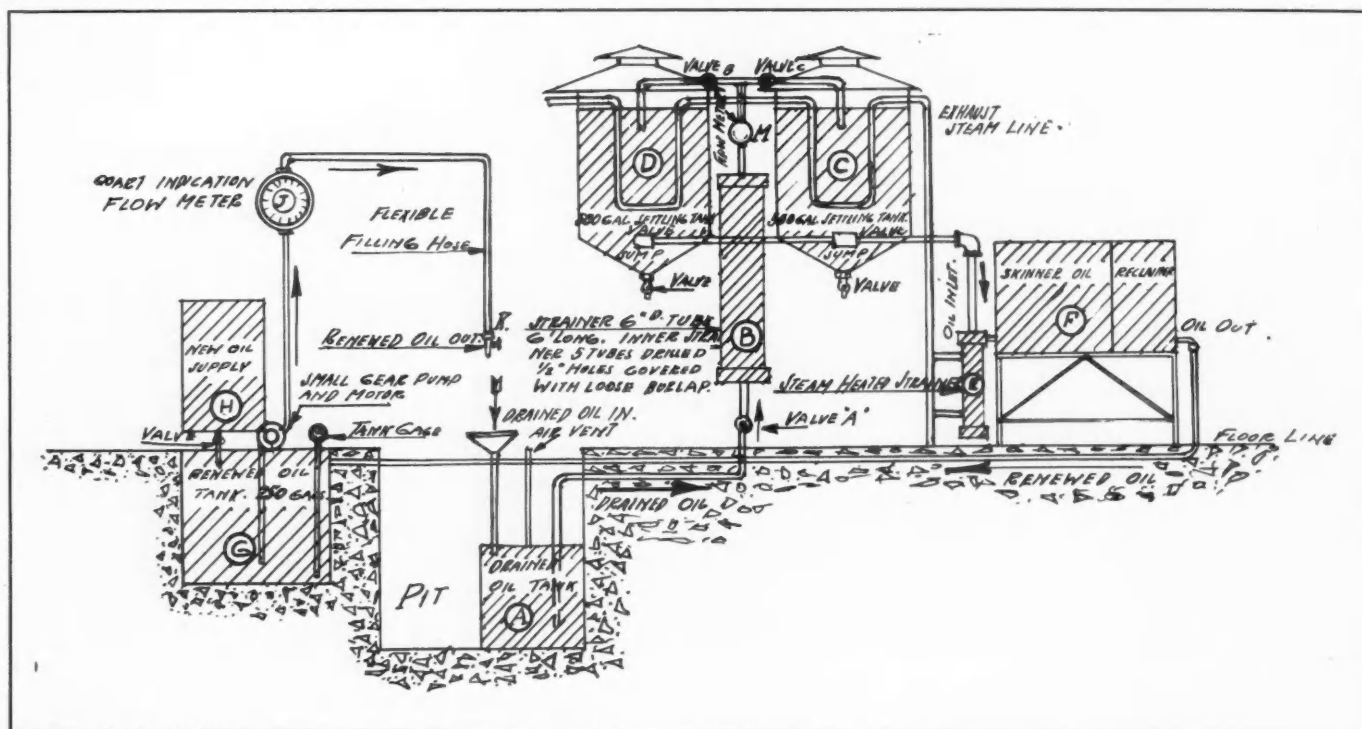
ventional manner by building sleigh roads, only to discover later that about three-fourths of a mile of the planned road was too steep for horse-drawn sleighs. His only conventional alternative was to build a longer, round-about road. But, instead, he pioneered! He finished the steep road and completed his hauling contract with a fleet of seven trucks and trailers—and made money!

To the prospective user or seller of trucks and trailers, knowledge of the cost of operating trucks in comparison to the cost of operating tractors or horse-drawn sleighs would undoubtedly be of value. But since such figures are not at present available, and because hauling conditions vary too much with each individual job, each operation must be considered independently and as an individual problem. No one can say with certainty that trucks and trailers can be used profitably in all cases. Logging operators, however, are always eager to reduce costs, and may be counted on to give serious consideration to any promising idea, particularly if proved practical by an experienced logger.

Harold Ostergaard, Assistant Forester in Charge of Minnesota State Forests, whose work brings him into direct contact with the practical aspects of lumbering, predicts a greater use of trucks in the logging industry, saying:

"I don't hesitate to say that in many instances trucks will replace horses in hauling logs in the woods. But their greater use will depend on more experience and application of that ex-

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Handling of oil is eliminated in this oil-change station by an oil circuit which includes a reclaimer

For the Boys in the Back
Room and the Men Who
Work in Glass Cages

MAINTENANCE CHATTER

GENERAL MOTORS

Engine

TAPER reamed valve guides with upper end of bore slightly larger than the lower end are now coming through on General Motors Truck Models T-11 to T-19 inclusive and may be used for replacement on 1929 and 1930 series truck engines.

The new guides have small clearance at the bottom, so that valve just drops through guide of its own weight when fitted, which prevents accumulation of too much oil on valve stems and thereby minimizes possibility of gumming and sticking valves.

Straight valve guides now in use cannot be taper reamed to the fit required. Taper reamers and tapered expansion valve seat tool pilots are to be used for fitting, or installing, the new guides.

Stems of inlet valves have been reduced .0005 in. in diameter but either large or reduced diameter stems can be used in the new guides because guides are to be reamed individually to fit valve stems.

FORD

Muffler

Long muffler types instead of short types are now used on most AA trucks. An adapter, part No. AA-5257-B, is used with bracket, A-5256-C, on the 131½-in. wheelbase chassis with a short tail pipe. This adapter is more flexible and reduces strain on the manifold when the truck is traveling over exceptionally bad roads.

New bracket holes must be drilled in the frame cross-member and side-member when a long tail pipe is applied to an old 131½ or 157-in. wheelbase frame.

Engine

SEVERAL changes have been made in the "A" engine to reduce oil consumption. A shield

has been placed about the oil pump to more uniformly distribute oil, the oil pan tray has been lowered ¼ in. by raising the bead of the oil pan, the piston ring pressure has been reduced to about 5 lb., and the width of slots in oil control rings increased from .040 to .072 in. Oil drain holes in the piston are now ⅛ in. (.125) instead of .100.

Changes can be made in vehicles now in use but they must be made as a unit. The factory cautions against installing the oil pump shield without the new oil pan.

CHEVROLET

Pistons

BOHNALITE pistons, with Invar strut, for the four-cylinder engine, are available in 3, 5, 10, 15 and 20 thousandths oversizes for standard compression and 3, 5, 10 and 15 oversizes in high compression (5.2 to 1) design and 3 and 5 thousandths oversizes in 4.8:1 compression ratio. Standard sizes of all three ratios are, of course, also available.

Cabs

A new brace extending from dash to sill has been added to strengthen the front end of cabs. The braces are welded and riveted in place in production, but they can be installed on trucks now in use by drilling bolt holes and bolting in position.

The braces are made in rights and lefts and carry list price of 25 cents each.

WHITE

SPARK PLUGS used as factory equipment on White trucks are listed below. If plugs run too cool, causing fouling, use a plug of the same series but having a higher number than standard plug. If plugs run too hot and preignition results use a plug having a lower number than the one in use. Type P

plugs have metric thread, types L and E have ⅜-18 thread.

Engine	AC Spark Plug
GK, GKA	P
GEC, GO, GN, GR	L-12
GRB, GRC, GRCB	L-10
1A, 3A	E-6
2A, 4A	E-9

Plug gaps should be set .019 to .023 for all types of plugs.

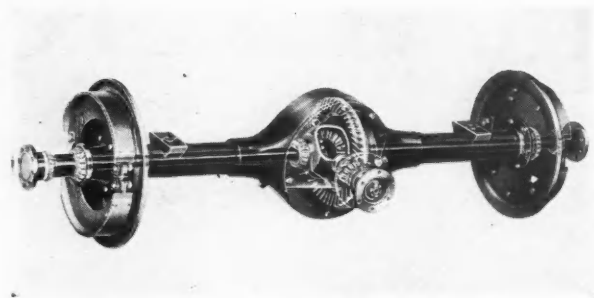
SMOOTH FLOORS

A SHOP floor of concrete too much like coarse sandpaper for comfort or long life of shoe soles stumped the shop staff. While brows were being knitted and conferences assembled a porter solved the problem.

He soaked discarded paper towels in heavy soapsuds and pushed the resulting pulp about the floor ahead of the broom while sweeping. The floor soon became smooth but not slippery.



STUDEBAKER 1½-TON DIAMOND T 2-TON



Full-floating axle now used in 1½-ton Model S-20 Studebaker

Studebaker Puts Full Floating Rear in 1½-Tonner

◆ Studebaker's 1½-ton Model S-20, introduced last August a year ago, is now equipped with a full-floating rear axle instead of a three-quarter floating type, according to announcement from the S.P.A. Truck Corp. Decision to use a Timken full-floating axle, such as has always been used in the two-ton model, was made because of mechanical and service advantages. Price remains the same. The 1½-ton truck is available in either a 130-in. wheelbase chassis at \$695 or in a 160-in. wheelbase at \$775. The two-tonner lists at \$895 for the 140-in. size and \$945 for the 160-in. wheelbase model.

Diamond T Gives More Truck For Less Money

◆ A new two-ton truck, listed at the low price of \$1,095, is announced by the Diamond T Motor Car Co. as a companion model to the previously announced 1½-ton Model 216. This new unit, designated as Model 316 and replacing Model 219, not only represents a decided advance in design but gives more truck for less money, being \$300 less in price than the former model, having a larger engine, stronger frame and heavier springs. It has a chassis weight of 4400 lb. and carries a gross weight rating of 11,500 lb. Three wheelbases are furnished: 155 in., standard; 167 in., special long, and 137 in. for dump bodies and tractor service.

The rubber-mounted engine is a six-cylinder 3½ x 4¼ in. Diamond T Hercules JXB, displacing 263 cu. in. and developing 65 hp. at 2400 r.p.m. It is mounted in unit with a Borg & Beck dry-plate clutch and four-speed Warner-Gear transmission. Spicer universal joints and two-piece propeller shafts with self-adjusting SKF ball-bearing support are employed.

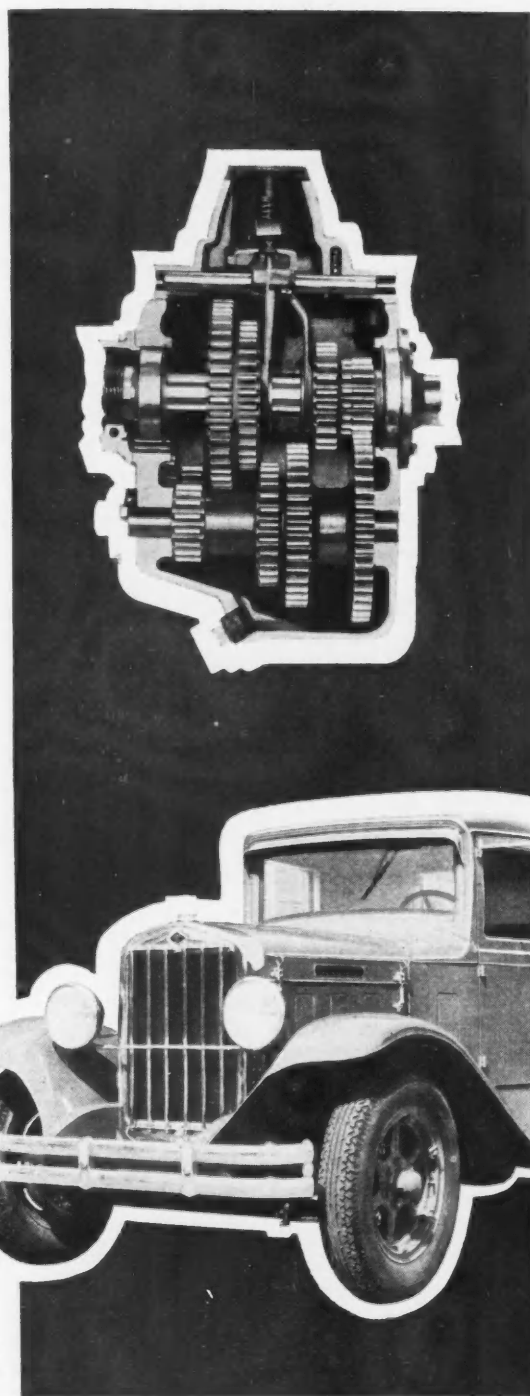
Fuel is fed by a camshaft-driven fuel pump to a 1¼-in., heavy-duty, Zenith carburetor of the down-draft type, equipped with air cleaner. The radiator, heavy-duty type, has flat tube and fin core fitted in a

NEW MODELS

pressed steel shell, finished in chromium plate. The core is further protected by a guard of chromium-plated bars. Starting, lighting and ignition are furnished by Auto-Lite.

Final drive is through a Clark B613, full-floating, spiral-bevel, rear axle. The pinion is straddle mounted on three bearings. Service brakes are four-wheel, Lockheed hydraulics, equipped with special molded lining having a total area of 350 sq. in. Front drums are 16 x 2¼ in., and rear, 16 x 3½. Rear drums are cast of alloy iron.

Cam and lever Ross steering is employed with

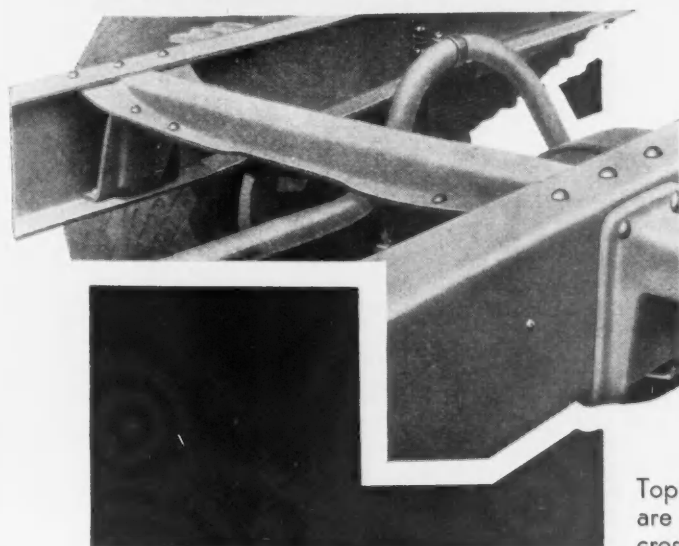
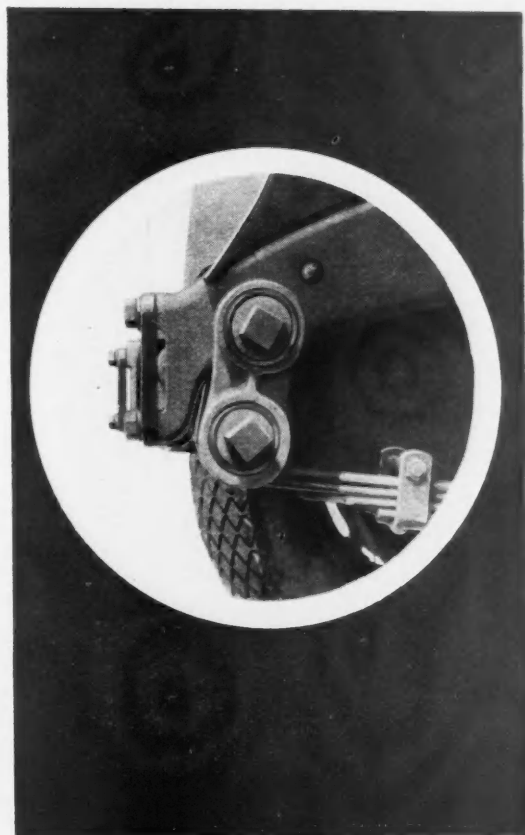


Top right: Compact four-speed transmission used in Diamond T Model 316. Right: Front view of Diamond T's new \$1,095 smart-looking 2-tonner

ON PARADE

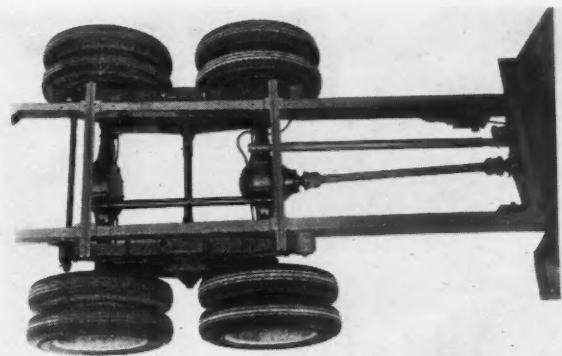
extra long front springs (42 x 2½ in.) carried in compression-type, rubber bushings and shackled in front. Rear springs are 53 x 2½ in. and have six-leaf, helper springs. The tapering pressed-steel frame includes special cross members of the alligator-jaw type. Depth is seven inches at point of greatest stress, the flange, 3 in.; stock, 7/32 in.

Hollow-spoke, metal wheels are standard equipment, and tires are 6.50/20 balloons with dual rears. Equipment includes electric lights, speedometer and heat indicator. A special, de luxe, all-weather, steel cab, especially designed for this model, is also offered.



Top left: Front springs of Diamond T's new model are fore-shackled. Left: Special alligator jaw cross-member design in Model 316 7-in. frame

HENDRICKSON UNIT CHECKER CAB TRUCK



Hendrickson four-wheel unit for converting 1½-tonners into six-wheelers

Seat cushions are deep; a rubber mat is provided for floor, and accelerator pedal is comfortably placed. Cowl and cab treatment has been worked out to provide harmonious, stream-like appearance.

Hendrickson Offers Four-Rear-Wheel Unit

□♦ The Hendrickson Motor Truck Co., Chicago, Ill., has developed a four-rear-wheel unit for converting 1½-ton trucks into six-wheelers. This unit makes available in the light truck field a complete unit—the other method of conversion is by attaching an extra axle to the standard axle.

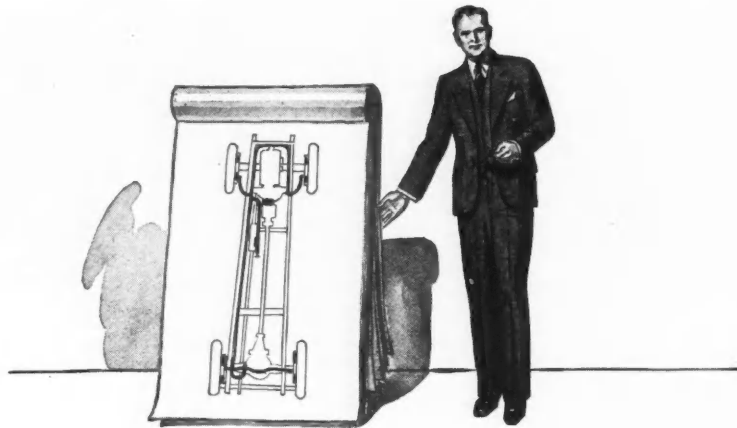
Equalization, essential in a dead axle six-wheeler, is effected through a patented rocking beam, which in turn is mounted below the centers of the axles on ball and socket joints. The load is carried directly on the center of this beam by a saddle that supports the spring in the same manner as a lower spring pad. Torque between axles and between driving axle and cross-member rods maintain a parallelogram action, absorb starting and braking stresses and also hold universal joint angle and slip to a minimum.

Checker Cab Builds Convertible Truck-Car Model

□♦ Checker Cab Mfg. Corp., Kalamazoo, Mich., has introduced a convertible, all-purpose car, under the name of Checker-Utility, to sell at \$1,795 f.o.b., Kalamazoo. This new unit can be used either as a light truck or as a passenger car, being readily convertible from one to the other.

As a passenger car, the Checker-Utility, with its front and auxiliary seats, can hold nine persons. With the auxiliary seat folded over, the back cushion of the rear seat folded into the top and the seat cushion of this seat folded completely over forward,

TURN TO PAGE 44, PLEASE



SPECIFIC brake talk

Brake talk is a fundamental step in automobile salesmanship because it centers around the very thing the customer values most . . . his own safety.

Hydraulic has gained universal public acceptance as *specific brake talk*; evidenced by the fact that more builders of cars, trucks and buses have adopted Lockheed Hydraulic Brakes as a *policy* than ever before. And no one can deny the value of public acceptance of individual equipment as a selling aid for any car.

HYDRAULIC BRAKE COMPANY
DETROIT, MICHIGAN, U. S. A.

LOCKHEED HYDRAULIC

Four BRAKES *Wheel*



Diesel Steps Out

The industry's first Diesel-engined production truck will make its appearance some time early in October. This revolutionary fact is couched in the statement of H. K. York, manager of the Marion plant of the Indiana Motor Truck Co., announcing that the decks have been cleared for immediate production. The engine, developed by C. L. Cummins and to be built in the Marion plant, will be used with a few engineering developments by the Indiana Truck Co.

De-junking Scrap

The Cleveland Guarantee Auto Scrapping Co., which has been operating on a 100 per cent scrap basis, has entered the used-parts business as result of an agreement made with the Cleveland Automobile Manufacturers & Dealers Association and a committee representing the car manufacturers. The policy was changed because it was found that refusal to sell parts did not affect the supply of used parts.

Can You Beat It?

A total operating cost of 85 cents per day, including gas, oil, grease, tires, repair parts and repair labor, is the startling economy figure achieved by the Santa Monica Dairy Co., Santa Monica, Calif. in the operation of its specially designed milk trucks, according to Herman Michel, president. Starting with three of these special milk trucks in 1929, this company now operates 26 and likes them.

Bruce Ford

Bruce Ford, vice-president, and until recently general manager of the Electric Storage Battery Co., died at his home early in August. Mr. Ford, who was nearing his fifty-ninth birthday, had been active in the Exide company since 1899, and registered more than 50 patents on inventions in the battery field during his career.

Timothy D. Beard

Timothy D. Beard, well-known figure on Chicago's automobile row and former secretary of the Chicago Automobile Trades Association, was killed late in August when his car overturned.

Roadbuilders' Convention

Perhaps concrete airways are in prospect. The 29th Annual Roadbuilders' Convention and Road Show will be held in Detroit's airport building Jan. 9 to 15, 1932.

S.A.E. To Sleuth Truck Ratings

The much discussed truck rating problem is about to receive a thoroughgoing S.A.E. study. Engineers officially have been brought together to evolve some generally acceptable method of rating trucks from the many ideas proposed since the subject came to forefront some six months ago. The probing will be done by a joint committee formed by Vice-Presidents F. K. Glynn, acting on behalf of the S.A.E. Transportation and Maintenance activity, and L. R. Buckendale, acting on behalf of the Motor Coach and Motor Truck activity.

Those who will serve on the committee are: L. Ray Buckendale, Timken-Detroit Axle Co.; B. B. Bachman, Autocar Co.; A. K. Brumbaugh, White Motor Co.; H. W. Drake, Gas & Coke Co. Portland (Ore.); F. K. Glynn, A. T. & T. Co.; A. G. Herreshoff, Dodge Bros. Corp.; M. C. Horine, International Motor Co.; Adrian Hughes, Jr., United Railways & Electric Co. (Baltimore); A. S. McArthur, Toronto Transportation Commission; C. A. Peirce, Diamond T Motor Car Co.; W. D. Reese, General Motors Truck Co.; A. W. Scarratt, International Harvester Co., and J. F. Winchester, Standard Oil Co. of New Jersey.



Our Own Ear to the Ground Department

● It is reported that Chevrolet and Ford will adopt synchromesh transmissions. Don't ask when.

● From a reliable (well, as reliable as you can expect) source we hear Ford has been experimenting with a four and eight, and that since the Plymouth announcement, interest has been concentrated on a four-cylinder engine with a wiggling mounting.

● Weldmech Steel Products Co. is experimenting with bottling bodies of all-aluminum and composite aluminum and steel construction. Experiments so far show that all-aluminum with riveted joints will weigh about 60 per cent as much as a steel body, and with welded joints about 33 1/3 per cent.

● An experimental plant for the extraction of bromide from sea water is projected near Wilmington, N. C.

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Licks All-Rail Rates

The Merchants and Miners Transportation Co. has inaugurated a new water and truck service between Philadelphia and interior New England points. The rates, lower than all-rail, are as follows:

1	2	3	R25
10	8	7	7 cents per 100 lb

These rates are published to and from more than 300 points in Shipping Board Tariffs Nos. 779 and 780. Fast trucks on 15 routes and 36 hour express steamer service are the backbone of the system.

Toronto Regulation Expected

A general increase in the freight rates of transport trucks and penalties for rate cutting is expected as a result of preliminary survey being conducted by the Toronto Department of Highways. It is expected that classification for freight purposes will follow very largely the present classification used by steam railways, with a greater parity of rates.

A Cheerful Prospect

There will be a large potential demand for automobiles and trucks in 1932, says Fidelity-Phenix Insurance Co. It bases this prediction on an estimate of 13,000,000 units in the 'used-five-years-or-more' class and a sub-normal consumption of 2,900,000 units in 1930, against the six-year average of 3,672,500.

A Pocket Calculator

A celluloid slide rule, which tells accurately the number of gross pounds that the Reo Gold Crown engine is capable of pulling under varying grades and road conditions, with a given rear axle ratio and tire diameter, is being furnished Reo Speed Wagon owners as an aid in planning loads for various routes.

Bottlers to Go South

Bottlers of carbonated beverages will go south to Dallas, Tex., Nov. 9 to 13, to attend annual exposition and convention of the American Bottlers of Carbonated Beverages.

A.E.R.A. Bound for Shore

The fiftieth annual convention and exhibit of the American Electric Railway Association will be held in the Atlantic City Auditorium, Sept. 26 to Oct. 2.

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NEWS



The Overload

A collection of items—interesting even when not news—and garaged here because there's no other place for such morsels.

A New Circus Act

Circuses that travel around in trucks are called "trimmers," by the envious railroad outfits, because they trim the surrounding territories. This is just another fruit of flexibility. Railroad outfits, which are compelled to lay out their routes well in advance, pulled into many a town during the summer only to find that the territory had been "trimmed" by a truck outfit which played five or 10 miles away. It's easy to keep tabs on the railroad circuses. Truck outfits do and beat them to the do-re-mi, jack, or what you don't have in the bank. It is estimated there are more than 30 motorized circuses on the road now with their outfits ranging from five to 50 trucks.

Bathing Beverage Beauties

Keeping white trucks white is a whale of a job. The Hoffman Beverage Co., operating in the New York City territory, does it by washing every working night and painting once a year each of the 180-odd trucks and salesmen's coupes. The large trucks used in plant to branch transfer work are treated more royally by getting a bath after every trip. Three trips a day equals three baths. And we'll bet a nickel to a moldy cracker that the high cost of this immaculateness isn't charged to advertising. Who has a moldy cracker to risk?

Out of the Bouquet Barrel

Billie Burgan, of San Diego, Calif., writes: "The July issue sure was a peach." Regarding his article in the August issue, Tom Barry, exec. sec. of the etc. etc., writes: "The illustrations were swell and the article got a grand play." Pierre Schon, General Motors Truck, and Frank A. Rose, operator of San Diego, tell us they have read with interest our truck rating articles. On page 13 President C. A. Tilt, of Diamond T compliments us for our truck rating series. Ira D. Mullinax, St. Louis newspaperman: "It is a real pleasure to look over a publication so attractive." Geo. W. F. Banks, Motor Haulage, Brooklyn, regarding article "A Truck Association Secretary Tells All": "I laughed until I was sick." And if you care to you can ask Tom Snyder, secretary, Motor Truck Association of Indiana, what he wrote Commodore Barry about the secretarial confession.

Breaking the News to Father

Ted Preble, sales manager of Pierce-Arrow trucks, is the proud father of a baby boy. "Guard him carefully against the insidious influence of railroad propaganda," we advised him. "Thank you," he replied gratefully. "If I ever catch him chanting that boyhood favorite 'Oh! For the Life of a Fireman' I'll put him on the spot."

Not Counting the Quarts

Here are a few statistics that won't constipate you. Fourteen million pounds of machinery will be exhibited at the road show of the American Road Builders' Association in Detroit next January. It will cost several million dollars. It will be admired by 25,000 out-of-town visitors who will spend a million dollars each day during the week of the event. This doesn't include what will be spent in Windsor, Canada, just across the bridge. That is, if anybody finds it necessary to go that far for thirst slakers.

Hot Stuff on Cooling

If there's an association that wants to listen for 45 minutes to a talk that will include the very last word on "The Cooling System and Its Care," the kindly treated Adam's apple ready for the occasion belongs to William H. Wilson, National Carbon Co., 30 East Forty-second St., New York City. Bill is prepared to go anywhere at anytime. We suppose he prefers Southern engagements during winter months. And, sh-h-h, you'd insult Bill if you offered to pay a cent of his expenses.

Fur Instance

A furrier up in Boston bought a special furrier body. During the first 60 days it helped him sell 100 fur coats.

Moratorium on Mishaps

In a radio broadcast Steve Bryce, N.A.C.C. Educational Department manager, told the wide, wide ether that what this country needs more than a five-cent box of cigars at the moment is a moratorium on traffic accidents. Annual losses due to traffic accidents, he WJZ'd, exceed something like four times the amount involved in the international debt moratorium, and who can remember those staggering figures? Steve's right. Everything else is being cut down; accidents should be no exception in an economy program. (Paraphrasing, Steve has a mellifluous—yes, sir!—radio voice. At least he wouldn't be affected by a nasal disarmament program.)

Expectorological Employment

The Goodyear tire factory at Akron furnishes employment to 13 cuspidor cleaners, says a publicity release. It doesn't say, however, that the official title is "spittooner."

Boon for Go-Boom Times

We propose an unusual slogan: "Give the Railroads the 15 Per Cent Rate Increase, and Help the Truck Industry."

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Automotive Flashes

CONTINUED FROM PAGE 41

Fulbright Goes to Mat

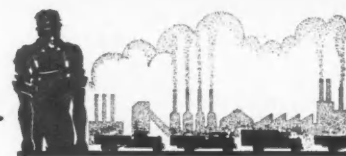
Railroad man Edward S. Jouett's charge that trucks are subsidized won a scathing response from R. C. Fulbright, chairman of the National Industrial Traffic League. Mr. Fulbright said that the shipping public will not take part in any program based on "vague and indefinite charges," which will virtually destroy highway transportation. He contended that "until railroads can show some concrete proof of their allegation that the governments are subsidizing the motor trucks the figure which indicate otherwise will most likely be accepted by the public as proof of the true situation."

A Copper-Cooled Valve

Thompson Products, Inc., has announced development of a copper-cooled valve for use in heavy-duty and high-speed engines. Copper is forged into the head and stem by an undivulged process, to aid cooling by conducting heat from head to stem of the valve.

U. of M. Transportation Course

A four-year transportation curriculum has been adopted by the University of Michigan. A copy of the courses is available to anyone.



Used Truck Sales Gets Lift

A program based on a survey of the used truck demand in every section of the country is being furnished dealers of the Dodge Brothers Corp. as a means of increasing their profits in this field. The program, "Fundamentals of Merchandising Used Trucks," consists of five sections—investigating, buying, reconditioning, advertising and selling used trucks.

No General Inspection

There will be no general inspection of motor vehicles in the state of Pennsylvania this autumn, according to Ben. G. Eynon, commissioner of motor vehicles. Revisions in the Motor Code, effective Jan. 1, provide for new official stations which shall be able to perform all inspection requirements.

To Pipe Coal

Coal shippers opposing the railroad pleas for a 15 per cent rate increase at the recent I.C.C. hearing predicted an increased use of substitute fuels and the possible installation of pipe lines to transport pulverized coal to markets.

Curtis Spreads

The Curtis Mfg. Co., Inc., Los Angeles, Cal., maker of the Curtis truck, has started on the construction of a \$200,000 factory and office building to be completed in October.

Laying it on Heavy

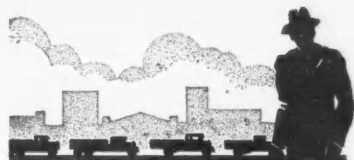
The South Carolina railroad commission has fixed motor freight rates for regular truck lines at 10 per cent in excess of rail rates for the same distances in all classifications, effective Oct. 1.



Prosperity Notes

\$ COMMERCIAL CAR JOURNAL is pleased to pick up the following item recommended to it by its stablemate, *Automotive Industries*, as a chord charming enough for the notes of this column. The note—Directors of the General Tire and Rubber Co. recently declared the sixty-second consecutive dividend on the company's stock. The company sold 18 per cent more tires in the first six months of this year than in the same period last year.

\$ Profit of \$15,980 in the June quarter was reported by Libbey-Owens-Ford Glass Co., reducing the loss for the first half year to \$162,091.



NEWS

\$ International Harvester Co. of New York area whitewashes gloom depression with a 47 per cent increase in registrations for the first six months of current year above registrations of the same period in 1930.

\$ Net profit of Perfect Circle Co. for seven months this year is \$586,579, which compares with \$430,019 for same period in 1930. Earnings for each month have shown an improvement.

\$ Deliveries of G.M.T. units for July were more than 32 per cent greater than June of this year, and nearly 16 per cent greater than July of last year.

\$ Thermoid Co. has issued a financial statement showing earnings of \$216,580 for first half, which equals two and a half times interest requirements.

\$ Mohawk Rubber Co. earnings for first half showed substantial improvement over first half of 1930—\$72,197 profit against \$151,783 loss.

\$ Motor Wheel Corp. and subsidiaries report net profit for the first half of current year of \$211,131.

\$ Goodyear Tire and Rubber Co. reports net profit for first six months of \$4,221,770.

\$ Sales of Willys-Overland were 15.9 per cent better in July than same month last year.

\$ Kelsey-Hayes Wheel Corp. reports net profit for first half of \$633,762.

TURN TO PAGE 44, PLEASE



Caught in Quotes

A 75 Per Cent Accident Cure

● W. T. PALMER, A RUSCO EXECUTIVE. —“It is estimated automobiles will kill approximately 35,000 people in this country and send more than 900,000 to hospitals. We shall never make real progress with this growing emergency until we tackle the problem at its four main roots. Here is what must be done if we are to save at least 75 per cent of the lives now sacrificed annually to our motorized carelessness and indifference: Separate opposing lines of traffic; separate automobiles and pedestrians; enforce compulsory inspections of cars and eliminate railroad grade crossings.”

The Commercial Car Journal

A Dig from the Mines

● O. L. ALEXANDER, REPRESENTING THE NATIONAL CONTRACTORS PROTECTIVE ASSOCIATION.—“The railroads must realize that their continued failure to assist the coal industry and their willingness to even put additional burdens on it will force it to devise ways and means of providing substitute transportation for its product. The trend of tonnage to water transportation and trucks and the establishment of central power stations at the mines are subjects with which the Interstate Commerce Commission is familiar.”

Are They Propagating?

● JOHN J. CORNWELL, GENERAL COUNSEL, BALTIMORE AND OHIO RAILROAD Co. (regarding probable effects of a railroad rate increase).—“If the people choose to give their lighter freight, with highest class rates, to the trucks, they must or ought to be willing to pay higher rates for what they grudgingly have to give the railroads. Of course, some more business will probably go to the trucks, running unregulated over your publicly-owned highways. But we cannot help that as long as the people, through their governments, go on subsidizing bus and truck companies and waterway transportation—competitors of the railways.”

A 2.8 Per Cent Installment "Mortgage"

● C. C. HANCH, GENERAL MANAGER, NATIONAL ASSOCIATION OF FINANCE COMPANIES.—“The National Bureau of Economic Research places the total annual income of all people in the United States at \$90,000,000,000 and two and one-half billion dollars (the total of instalment buying) is only 2.8 per cent of this total. This probably is the fairest estimate of the extent which the American people have mortgaged their future to pay for instalment goods.”

Our Daily Bread and Butter

● M. L. PULCHER, PRESIDENT, FEDERAL MOTOR TRUCK Co.—“Taxing the motor truck is taxing your bread and butter. Virtually everything you eat and wear—every necessity of life—depends on the truck. This means that if some of the proposed taxation against motor trucks is permitted to become actual laws, every consumer will certainly be brought face to face with higher cost of living.”

Oil Again

● H. C. MOUGEY, RESEARCH LABORATORIES, GENERAL MOTORS CORP.—“The factors affecting oil consumption in the order of their importance are: engine speed, oil leaks, design of the lubricating system and changes due to wear, viscosity of the oil, volatility of the oil, pour test, possibility of effects from carbonization of the oil control rings, length of time between oil changes.”



Personnel Changes

★ Ralph G. Strohl, after an absence of two and a half years, has returned to the engineering research fold of the Autocar Co., to continue an 11-year service record. During the 2½-year interim Mr. Strohl was associated with Mack Trucks in Allentown.

★ Walter A. Scott, rising from salesman to sales manager to branch manager to division manager of Brockway, has pegged another notch. He is now vice-president in charge of the district comprising greater New York, White Plains and New Haven.

★ P. C. Gartley, 20 years a sales executive, resigned as general sales manager of Willys-Overland to launch his own business as a Willys distributor under the name of P. C. Gartley, Inc. The territory embraces the entire Chicago area.

★ Lester E. Godsell, formerly Eastern representative of the Budd Wheel Co., has been transferred to the truck sales department of the company to devote his attention to manufacturers' equipment sales in New York.

★ C. A. Jessup, for 20 years in rubber, has been appointed a member of the Manufacturers Sales Department of the Firestone Tire & Rubber Co., with headquarters in Detroit.

★ Ottis Lucas, a ringer in Studebaker sales promotional activities, has succeeded the late M. F. Rigby as general advertising manager of the Studebaker Corp.

★ C. R. Simmons, formerly assistant sales manager of Fruehauf Trailer Co., has been appointed sales promotion manager of the Velvet Power Brake Co.

★ W. A. Falvey, a veteran truck man, has been appointed factory wholesale manager of the Sioux City territory by the Sterling Motor Truck Co.

★ James H. Kepper, New Orleans banker, has been elected to the directorate of the Commercial Credit Co. of New Orleans.

★ L. D. Mead, an engineer of automotive repute, has joined the DiVco-Detroit Corp. as chief engineer.

TURN TO PAGE 44, PLEASE

September, 1931

OUR OWN EAR TO THE GROUND DEPARTMENT

CONTINUED FROM PAGE 41

Ethylene dibromide, manufactured from the bromide, will wind up in motor vehicles as anti-knock compound.

● That promised tabulation of "State Restrictions on Motor Vehicles' Sizes and Weights" will be found bound in this issue between pages 28 and 29. Save it. It'll be good for a couple of years.

● More engineers, we learn, are working on eight and 12-cylinder engines for trucks. With betterment of business you may expect announcements. Stewart, by the way, just announced another eight.

● Magnesium alloys, the claim is now made, will be considered along with aluminum alloys when engineers plan trucks of the future. Magnesium possesses the required virtues of strength and lightness; in fact, it is lighter than aluminum.

CHECKER CAB BUILDS TRUCK-CAR MODEL

CONTINUED FROM PAGE 37

the car becomes a one-ton truck. Or with the back cushion folded into the top, the seat cushion raised to a vertical position, and the auxiliary seats left open, it becomes a half-ton truck with capacity for carrying six passengers as well.

The car is built on a standard Checker cab chassis, powered with a six-cylinder Buda engine, developing 61 hp. at 3600 r.p.m. It has a wheelbase of 122 in.; is equipped with hydraulic brakes, Gabriel triple hydraulic shock absorbers, non-shatterable glass throughout, and carries six heavy-duty tires as standard equipment.

WHY FLEET THUMB SHOULD BE DOWN ON OWN SERVICE

CONTINUED FROM PAGE 16

perience command respect. They shall not go unheard nor unanswered.

No big fleet can change overnight from its own maintenance to outside maintenance without getting into trouble. The job of taking care of a fleet calls for cooperation between both parties. The outside service stations must do some things to prepare for fleet business, the fleet organization likewise must do its part.

In an article next month it will be shown what outside shops must do to get more fleet business. The manufacturer also has a part in the fleet maintenance program and it shall be pointed out. Fleet experience in chang-

ing from self-maintenance to outside maintenance indicates that some time is required to effect changes required.

First on the list of requirements for properly serving a fleet is night service, not overtime night work by the regular force when demanded by an emergency, but a regular night force entirely separate from the day force.

LET BUYERS RATE TRUCKS

CONTINUED FROM PAGE 17

Truck C
Chassis weight 4,000 lb.
Body, spare tire, etc. 1,400 lb.

Gross rating 12,000 lb.
5,400 lb.

Pay load 6,600 lb.

Having arrived at this gross rating it would be absolutely necessary to use the tire makers' rating for tire equipment. If for any reason a 1½-ton truck would not stand up with the larger tire capacities that truck should revert to its original 1-ton rating.

PROSPERITY NOTES

CONTINUED FROM PAGE 42

\$ Business of the Marvel Carburetor Co. during the second quarter of this year was slightly greater than the previous quarter, declared C. S. Davis, president of Borg-Warner Corp.

\$ A net profit of \$127,411, reported by Mack Trucks, Inc., for the June quarter, has reduced the company's half-year loss to \$51,326.

\$ Regular quarterly dividends of 75 cents on common and \$1.25 on preferred have been declared by G.M.C.

AFTER HOURS

CONTINUED FROM PAGE 24

opinion favoring a readjustment of wages, and there will be the opinion opposing wage reduction but endorsing a reconsideration of restrictive railroad legislation. With such sympathy prevalent, the railroads surely will find some modicum of relief.

One thing is positive—the railroads must be helped out of their predicament in some fashion. But—and this is equally positive—not at the expense of other transportation agencies. It is a fact that long years ago the railroads were the spinal column of the nation. Their mistakes, their oversights, their folly compel a revision of that proud designation. Today—and their begging proves it—they are the spineless column.—G. T. H.

TRUCK RATING DEPENDS ON THREE FACTORS

CONTINUED FROM PAGE 23

undoubtedly plays a larger part than differences in materials used and differences in design. Color is lent to this impression by the known fact that in many cases trucks which are among the heaviest for a given rating also embody materials and features of design of the highest grade, which naturally tend to bring down chassis weight.

If the rating is based on total weight of the chassis there is no reason (in the rating method) why one

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THE OVERLOAD

CONTINUED FROM PAGE 42

15 Years Ago in C. C. J.

The following interesting items are culled from the September, 1915 issue of COMMERCIAL CAR JOURNAL: The New York branch of the beer wagon drivers' union is attempting to enforce the closed shop rules in connection with commercial cars. Washington, D. C., fire officials expect soon to discard the horse for the motor. General Motors to build electric truck. Studebaker announces new electric commercial cars.

In the report of the Chicago-Detroit reliability run, the following truck makes were mentioned: (How many of them do you recall?) Poss, Lincoln, Van Dyke, Modern, Buick, C.P.T. (Chicago Pneumatic Tool), Chase Krikworth, Gramm, Hewitt, Nelson, Le-Moon, Lauth-J, Owosso, Federal, Stephenson, Clark, Ideal, Kelley, Mais and Dayton.

Dividing the Glamour

Talk about the haughty passenger car, how's this for her hard-working brother offered unequivocally by her foreign backer, The Autocar, London: "It can be said without much fear of questioning that the modern commercial chassis represents probably the greatest advance in automobile engineering of the past few years."

Opportunism

Smart Chester, Pa., long booster of tidewater location and unparalleled rail facilities, has found a new and better boast. It's passed on to all who enter the city via great roadside poster in this fashion—CHESTER, PA. Within one day's truck haul of 20,000,000 people.

PERSONNEL CHANGES

CONTINUED FROM PAGE 43

★ Milo D. Herron, manager of Graham-Paige commercial car division since 1929, has been appointed district manager over the territory comprising Maryland, Virginia and District of Columbia, with headquarters in Washington.

★ Russel V. Cline, well known in advertising and general business fields through 20 years' activity, has joined the Sweeney & James Co., Cleveland advertising company, as an expert in the automotive, tire and accessory fields.

★ Kenneth S. Clapp has returned to his position as director of sales of the United States Air Compressor Co.

STATE RESTRICTIONS ON MOTOR VEHICLES

(Including Changes)

STATE	NUMBER OF TRAILERS PERMITTED	LENGTH (Feet)	WIDTH (Inches)	HEIGHT (Feet)	4-WHEEL GROSS	6-WHEEL GROSS	COMBI-NATION GROSS	MAXIMUM GROSS (g)	AXLE LOAD	WHEEL LOAD	TRAILER OR SEMI-TRAILER GROSS	LOAD PER INCH TIRE WIDTH	MINI-MUM AXLE SPACE (Inches)
ALABAMA	1	33u 46c	96	12			32,000		12,000				40(r)
ARIZONA	1	30u 85c	96	14½	22,000	38,000			18,000	9,000		700 (flanges 500 (metal))	
ARKANSAS	1	33u 85c	96	14½	22,000	28,000					¾ of gross		96(f)
CALIFORNIA	1	33u 60c	96	13½	22,000	34,000			17,000	8,500		(s) 600 (base) 500 (metal)	
COLORADO	X	33u 60-85c	96	12½	30,000	40,000		40,000	20,000			(p) 800 (cross-section) (s) 800 (base)	40(r)
CONN.	1	40	102		26,000(s) 32,000(p)	40,000(p)	40,000(p)	40,000(p)				800	
DELAWARE	1½	33u 60c	96	12½	22,000(s) 26,000(p)	36,000(p)	40,000	40,000	16,000(s) 18,000(p)			700	
FLORIDA	X	35u 45c	84	12	16,000(p) 8,000(s)	16,000(p) 8,000			16,000(1)			(p) 600 (widest point) (s) 600 (contact)	
GEORGIA	X	35u 45c	96	12½	12,500	12,500	12,500 (per unit)				6,350(2)	800 (flanges)	
IDAHO	1½	33u 85c	96	14½	24,000	40,000			16,000			to 3 in. 400 3-5 in. 600 over 5 in. 800	120(f)(3) 40(r)
ILLINOIS	2	35u 65c (4)	96		24,000	40,000		40,000	16,000		32,000	800	40(r)
INDIANA	X	33u 40c	96	12	600(L+40) (g) (5)	Same	Same	Same	16,000		(6)	800 (flanges)	
IOWA	X	30u 45c	96	12	450(L+53½) (g)	Same	Same					800 (flanges)	40(r)
KANSAS	X	35u 50c	96	13	24,000(7) 28,000 on duals	34,000			16,000 18,500 on duals				
KENTUCKY	X		90		28,000				18,000			800 (contact) 600 (winter)	
LOUISIANA	X	33u 85c	96	14½	16,000 to 32,000(8)			19,200 to 38,400 (8)	8,000 to 16,000(8)			800	
MAINE	1	36u 62c	96	12½	20,000(s) 24,000(p)	30,000(s) 36,000(p)			16,000(s) 18,000(p)			600(9)	
MARYLAND	X		93		25,000	40,000						650	
MASS.	1	28u 40c	96(s) 102(p)		28,000(s) 30,000(p)	40,000(10)	40,000	40,000				800	
MICHIGAN	2	40u 60c	96	14					18,000			700	106(f)
MINNESOTA	2	35u 60c	96	12½					17,920(s) 22,400(p)	8,960(s) 11,200(p)		800 (base)	(11)
MISSISSIPPI	X							12,000 load					
MISSOURI	X	33u 40c	96	12½	24,000 28,000(12)	38,000 42,000(12)			16,000 22,400(12)			600 (flanges)	
MONTANA	X	33u 60c	96	14½	24,000	34,000			13,000 and 16,800(13)			800	96(f)
NEBRASKA	X	35u 50c	96	12	14,000 net load (14)				16,000			700	

REFERENCE TABLE

1½ indicates that a motor vehicle and a semi-trailer may draw one other vehicle.

u—Single unit e—Combination of units
s—Solid tires p—Pneumatic tires
f—Distance between first two axles
r—Distance between last two axles

g—Not specified

g—Where weight is given by formula, L is distance in feet between front and last axles

1—In counties specified by County Commissioners

2—Load for unit having one axle

3—For 24,000 lb. and over

4—Starting 1933—40 ft.

5—20 per cent less on solids

6—Semi-trailers count as separate units

7—Solids prohibited after July 1, 1931, except for trucks hauling farm products

8—According to class of highway

9—If tire load is 700 lb. per in. permissible gross and axle loads are reduced

10—On through routes

11—When spacing is 5 ft. or less, axle load is 16,000 lb. on pneumatics and 12,800 on solids

12—In cities of 75,000 population or more

13—On six and four-wheel vehicles, respectively

14—On farm and intra-municipal trucks, 16,000 lb.

15—Gross weight limit for vehicle or combination having three or more axles on pneumatics, 30,000 lb. plus 750 lb. for each foot and major fraction thereof from center of front to center of last axle

Compiled by COMME

MOTOR VEHICLE SIZES

(Changes as of August 1, 1931)

MINI-MUM AXLE SPACE (Inches)	STATE	NUMBER OF TRAILERS PERMITTED	LENGTH (Feet)	WIDTH (Inches)	HEIGHT (Feet)	4-WHEEL GROSS	6-WHEEL GROSS	COMBI-NATION GROSS	MAXIM GROSS
40(r)	NEVADA.....	X				25,000	38,000		
	NEW HAMP....	X	30u 85c	96		20,000			
96(f)	NEW JERSEY..	1	28u 85c	96	12½				30,000
	NEW MEXICO..	1	33u 85c	96	14	600(L+40) (g)	Same	Same	Same
40(r)	NEW YORK...	X	33u 85c	96(s) 106(p)	13	28,800(s) 36,000(p)	35,200(s) 44,000(p) (15)	(15)	40,000 50,000
	N. CAROLINA..	1½	30u 65c	90	12½				20,000
	N. DAKOTA....	1	35u 85c	96	14½				20,000
	OHIO.....	X	35u 85c	96	12½	20,000(s) 24,000(p)	36,000		
	OKLAHOMA....	X		90					20,000
120(f)(3) 40(r)	OREGON.....	X	34u 65c (16)	96	12	600(L+40) (g) (17)	Same	Same	49,000
40(r)	PENNA.....	1½	33u 70c	96	14½	26,000 (20)	36,000	65,000	
	RHODE IS....	2	85c	102	12½	28,000	40,000		
40(r)	S. CAROLINA..	X	33u 50c	90	12½	20,000 (21)	25,000	40,000	
	S. DAKOTA....	1	50c	96	12½				20,000
	TENNESSEE....	X		96					20,000
	TEXAS.....	X	35u 45c	96	12½	(23)			7,000 net load
	UTAH.....	1	33u 85c	96	14	19,500(s) 26,000(p)	25,500(s) 34,000(p)		
	VERMONT....	1		96	12				20,000 16,000
	VIRGINIA....	1½	30u 85c	96	12½	40,000	40,000	40,000	40,000
108(f)	WASHINGTON	X	35u 85c	96		24,000	34,000	60,000	
(11)	W. VIRGINIA..	X	33u 85c	96	12				1330(L+ 1000(L+ 670(L+
	WISCONSIN...	X	33u 60c	96		15,000(32) 24,000(33)	22,500(32) 36,000(33)		
	WYOMING....	1	30u 85c	96	12½	25,000			
96(f)	DISTRICT OF COLUMBIA..	1	30u 85c	96	12½	28,000			

This table is based upon data furnished by courtesy of

16—Intra-municipal trucks,
17—Permit for vehicle or com-
ing three or more axles on
36,000 lb. plus 750 lb. for
4 major fraction thereof
front to center of last

16—Starting 1933 limit is 50 ft.
17—Solids may be used in municipalities only
18—Paved highways
19—Other highways
20—Gross weights limited by schedule of
chassis weights
21—Common carriers 17,000 lb. gross on
solids; 18,000 lb. on pneumatics

22—Restrictions do not apply in the following
counties: Shelby, Davidson, Laurence,
Knox, Sullivan, Hamilton and Loudon
23—Permits 14,000 lb. net load under certain
conditions
24—On state-aid roads
25—In towns and incorporated municipalities

26—Total gross load permitted on Cl
bridges
27—Total gross load permitted on Cl
bridges
28—Total gross load permitted on Cl
bridges
29—Solids and pneumatics on maj
ways in metropolitan areas

SIZES AND WEIGHTS

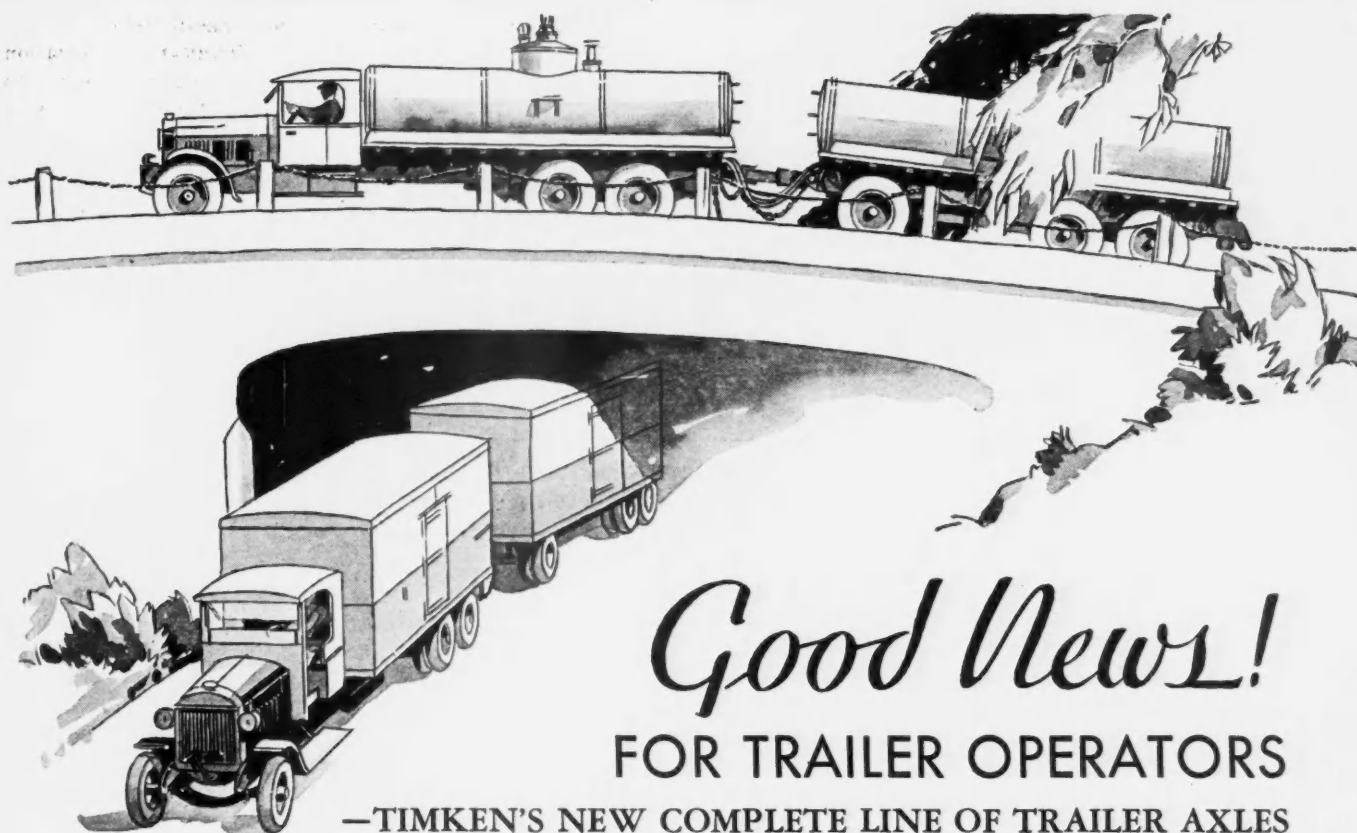
COMBINATION GROSS	MAXIMUM GROSS (g)	AXLE LOAD	WHEEL LOAD	TRAILER OR SEMI- TRAILER GROSS	LOAD PER INCH TIRE WIDTH	MINI- MUM AXLE SPACE (Inches)
					600 (base)	42(r)
		15,000			750 (base)	
	30,000				800 (base)	
Same	Same	18,000			800 (rubber) 500 (metal)	40(r)
(15)	40,000(s) 50,000(p)	17,920(s) 22,400(p)	8,960(s) 11,200(p)		800	46(r)
	20,000				600	
	20,000					
		16,000(s) 18,000(p)			over 6 inches 650 (flanges)	
	20,000	16,000			800	
Same	49,000	16,000(18) 17,000(19)	8,000(18) 8,500(19)		500 to 600	40(r)
5,000		18,000			800	
		22,400			800 (flange) 590 (metal)	
10,000		10,000 to 15,000			(p) 600 (flange) (s) 600 (contact)	
	20,000	16,000			600 (flange)	
	20,000(22)				650 (contact)	
	7,000 net load				600	
		13,500(s) 18,000(p)			to 3 in. 400 3-5 in. 600 over 5 in. 800	120(f) 40(r)
	20,000(24) 16,000(25)				600 (contact)	
40,000	40,000		8,000		650 (contact)	
60,000		12,000 to 18,500			800 (rubber) 625 (metal)	144(f) 42(r)
	1330(L+40)(26) 1000(L+40)(27) 670(L+40)(28)	22,400(29) 18,000(30) 16,000(31)	11,200(29) 9,000(30) 8,000(31)			40
		12,000(32) 19,000(33)		12,000(34) 24,000(35)	800 (mfg. rating)	
		18,000			700 (flanges)	
		22,400			3-4 in. 500 5-6 in. 700 over 7 in. 800	

Furnished by courtesy of Motor Vehicle Conference Committee.

al gross load permitted on Class H 20
ridges
al gross load permitted on Class H 15
ridges
al gross load permitted on Class H 10
ridges
ids and pneumatics on major high-
ways in metropolitan areas

30—Pneumatics on major industrial highways—
solids 80 per cent
31—Pneumatics on major highways in indus-
trial areas—solids 80 per cent
On secondary highways in any area—
solids 50 per cent
32—Class B highways
33—Class A highways

34—Two-wheel semi-trailer on Class B high-
ways
35—Four-wheel semi-trailer on Class A high-
ways



Good News!

FOR TRAILER OPERATORS

—TIMKEN'S NEW COMPLETE LINE OF TRAILER AXLES
WITH STANDARDIZED INTERCHANGEABLE PARTS

If you could build your own trailer axles you'd make sure that as many parts as possible were interchangeable with similar parts of the axles on the trucks which pull the trailers.

That's exactly what Timken has done. It's a big step in the right direction. Think how much simpler your service problems become. Think how much less inventory of service parts you will have to keep in stock.

Mechanically these axles are just what they should be; just what you expect of Timken.

QUALITY—the best, of course; alloy steels, heat treated; axles from which trouble and expense are eliminated.

BRAKES—correctly designed for all types of brakes; correct brake mountings; effective oil seals in hubs, and oil-slingers prevent excess hub lubricant from getting to the brakes.

Brakes are an engineering job, and *essential* on trailers. These axles solve that.

INTERCHANGEABLE PARTS—brake mechanism, hubs, bearings, drums, etc., are identical and interchangeable with the same parts of Timken driving axles—bevel or worm—of the same capacities.

FULL LINE—five sizes, and types for two-wheel or four-wheel semi-trailers, and for four-, six-, or eight-wheel trailers. Designed for application of dual balloon tires.

If you'd like further information write us for literature on the subject.

THE TIMKEN DETROIT AXLE COMPANY, DETROIT, MICHIGAN

TIMKEN AXLES



HOW TO KEEP AND USE ACCIDENT STATISTICS

CONTINUED FROM PAGE 33

data from one or more Record Sheets. Both sides of this 8½ x 11 in. form pattern items on the Record Sheet and are designed to take totals from one or several Record Sheets, thus providing a company with a convenient means of studying its own record and enabling it to make a report to headquarters of the National Safety Council for comparison with accident experiences of other similar operators. Table 2 on the Summary Sheet corresponds to Table 1 on the Record Sheet and Table 3 on the Summary with Table 2 on the Record Sheet.

The practical value of keeping accident records is in placing at the disposal of the employer certain facts which enable him to put corrective measures into effect. While in any event corrective methods are employed immediately after the occurrence of an accident, an analysis of a large number of accidents is essential to learn what factors particularly need attention. Some of the more important facts it is very helpful to know are listed in the accompanying box.

How accident statistics can be used to promote greater fleet efficiency and safety can best be illustrated by an analysis of the 24 accidents recorded on the Summary Sheet (Fig. 3). Under "Type of Accident" at right the total column reveals that 10 of the 24 accidents recorded involved collisions with other motor vehicles. This suggests inattentive and careless driving and furnishes the safety director with specific information when going to the front with corrective talks and measures. In fact he is equipped to point out the various forms of violations of good driving practice largely responsible for the accidents from the facts listed under "Action of Driver." Examination of this section shows that unobservance of such ordinary rules of driving as excessive speeding, failure to signal changes in direction or speed, driving on the wrong side of the road, ignoring slow or warning signs were among the leading causes of the 24 accidents. While general location of the accidents was rather evenly distributed throughout the territory in this particular record, others may be unbalanced, suggesting need for improved handling in city or residential sections, as the case may be. It is likewise apparent from section G, "Condition of Vehicle," that closer supervision and inspection should be given the company's trucks. Defective

brakes and improper lighting were factors in accidents that could readily have been eliminated. Section C, "Result of Accidents," is not only of interest from the standpoint of being constantly informed as to the nature of accident damage, but is of use to those companies operating in more than one community from a comparative standpoint. The information in this section is obtained in supplementary investigations of accidents by someone other than the driver.

Examination of the records of individual drivers, as given in the Record Sheet (Fig. 2), shows that John Jones, an inexperienced driver, had three accidents during the period covered by the sheet. If the circumstances of these accidents are studied in detail, and Jones' driving practices observed, it is generally possible to detect and correct the conditions, which lie at the bottom of his bad record. Tom Smith, an experienced driver, is apparently careless and a study of his habits may show the need of disciplinary measures. These two examples serve to show the need of investigations following each accident to determine cause; instruction to correct deficiencies and penalties for chronic carelessness.

Progress is primarily gaged by reductions in accidents themselves, but another valuable feature of accident statistics is that they make possible the checking of progress. They show what has been done in reducing factors which have figured prominently in the occurrence of accidents. For example, determined effort for better driving is reflected by a reduction in number of violations of good driving practice under such items as "On Wrong Side of Road" and "Failed to Signal" (Fig. 2).

TRUCK RATING DEPENDS ON THREE FACTORS

CONTINUED FROM PAGE 44

particular part or unit should be skimmed. The designer naturally will try to make all parts as nearly equal in strength or in carrying capacity as possible, so the factor of safety will be about the same. This statement, of course, must be interpreted in a very general way.

When figuring capacity upon a basis of weight of the complete chassis it would not be a good plan to use a single multiplying factor or coefficient for trucks of all sizes, for it is well known that the ratio of useful load to chassis weight ordinarily is much smaller in the smaller sizes of trucks than in the large ones. To illustrate the point, the average

weight of 1-ton chassis listed in COMMERCIAL CAR JOURNAL specification tables is 3226 lb., which is equal to 1.61 lb. of chassis for each pound of net load, not counting body weight. In the case of 5-ton chassis the average weight is 9043 lb., which shows 0.9 lb. of chassis for each pound of net load carried.

● Two-Class Coefficients ●

Obviously the coefficients should be graduated in accordance with weight of the chassis, and suitable values for coefficients undoubtedly could be determined from existing designs. If there are to be two ratings, a light-duty rating and a heavy-duty rating, different coefficients will have to be used for the two ratings based upon chassis weight. After the proper coefficients have been determined it is only necessary to multiply the chassis weight by the particular coefficient to obtain the gross-weight rating.

As far as the total gross load capacity of the tires is concerned, that is also easily found. Each standard size of tire has a regular load rating, and it is merely a matter of adding up the tire capacities of individual tires to determine total carrying capacity.

We have now three gross-weight ratings for the same truck chassis, the first based upon the ability of its powerplant, in conjunction with the reduction ratio and the wheel diameter, to haul a certain gross weight up a predetermined grade in high gear; the second based upon the rated carrying capacity of its tires, and the third upon the total weight of the chassis, upon which the abilities of the frame, springs, axles and wheels to support load under truck-operating conditions are assumed to depend. These three ratings probably will be different, and how is a single rating to be obtained from these three different ones?

One line of argument would be that since "a chain is no stronger than its weakest link," the lowest of the three ratings should be the one adopted for the truck. The writer believes, however, that it would be a better plan to use the mean of the three ratings. The comparison with the chain is not quite valid, for the reason that the breaking strength of the weakest link is the absolute limit to which the chain can be loaded, whereas any one of the three ratings of the truck is really only a fraction of the maximum gross weight to which it might be loaded. If the lowest of the three ratings is exceeded in practice, that does not mean that the truck will fail, but that from the standpoint of the factor on which this rating is based it will not be quite so satisfactory.

70-HORSEPOWER 6-CYLINDER STUDEBAKER

1½-ton truck

with a

full floating rear axle

\$695 at the factory

One year ago Studebaker announced the most powerful 1½-ton truck ever sold as low as \$695—and the world's lowest priced 2-ton truck (\$895). Studebaker truck registrations jumped from 18th to 6th place.

Now Studebaker offers even greater value—a full floating rear axle in its 1½-ton chassis as well as in the 2-ton chassis. Both have 70-horsepower, 6-cylinder engines, 4-speed transmissions, cam and lever steering and stalwart frames. These trucks are built to Studebaker's 79 years of quality traditions.



NOW IS THE TIME TO "CLEAN HOUSE"

CONTINUED FROM PAGE 13

truck buyers generally.

Our system of list prices and dealer discounts, generally, is so antiquated that words fail me to properly describe it. To my mind, it is ridiculous that the industry should endeavor to sell today its modern motor trucks on a price and discount basis which was established fifteen years ago and is as antiquated as the four-cylinder, solid tire, two-wheel brake truck. For an industry as a whole to countenance a price system which does not have the respect of the truck buyer and the manufacturers' own dealer and sales organization, is ridiculous. To price motor trucks on a basis that invites haggling and horse-trading methods is costing manufacturers and dealers alike millions of dollars annually.

Furthermore, if a sane method of pricing motor trucks is generally adopted, it will eliminate to a large extent the problem of used trucks. If motor trucks are priced so that we place a premium on the ability of the buyer to drive a sharp bargain through a flexible system of allowances, it is obvious the problems will always be with us. If new trucks are priced on a basis where there is no so-called trading-margin included, in a remarkably short time we will educate truck buyers to the fact that used trucks will be traded only for their junk value and there will be a uniformity of allowances such as this industry has never seen.

Another practice in our industry, which, in my opinion, needs changing, is the matter of factory financing. I do not believe motor truck dealers generally will have a sound and healthy business so long as factories insist upon financing the incompetent business man. This does not mean that all dealers who secure factory financing are incompetent, but I am certain that all incompetent dealers exist solely because of factory financing plans.

Many bankers have lost confidence in retail truck paper because they have been fooled in the past by the long discount prices which enabled unscrupulous dealers to show on paper satisfactory down payments, whereas no cash, or very little cash, actually changed hands, and the down payment was made up of a worthless truck and part of the dealer's long discount.

Again referring to prices, if all trucks were sanely priced, bankers would have more respect for our industry and would give worthwhile dealers in their community the finan-

cial support to which they are justly entitled. Furthermore, if manufacturers operating retail branches would insist that those retail branches show a retail profit in proportion to the money invested, it would eliminate the wild trading and price cutting which has prevailed where branch managers were simply trying to secure volume for the factory on a break-even basis. This would also encourage legitimate dealers to handle motor trucks and relieve the manufacturer of the excessive burden of retailing motor trucks.

● Business More Profitable ●

I speak very frankly of all of the above evils, because as much as I am ashamed of it, I must admit that our company has at one time or another indulged in all of them. Now, you will probably say, granted that all of the above is true: How are we to bring about this millennium in the truck industry? I wish I knew the answer. All I can say is that our company, in the past three years, has put into effect in our business all of the policies which I advocate. I can further state that since these policies were inaugurated our business has been more profitable, our dealers' business has been more profitable, and we have been getting some real pleasure out of our work.

I cannot presume to dictate how others should conduct their business, but I urge for all those who have the best interests of the motor truck industry at heart, some consideration for these policies. They are not original with me, but are simply the result of common sense applied to our business.

M O M E N T U M

CONTINUED FROM PAGE 29

tance with a man compelled to do a standing broad jump.

They will have the most potent and powerful advantage over competition that any company can possess—MOMENTUM.

They will have gathered that momentum slowly, imperceptibly at first, but with gradually increasing velocity. The first breath of really good business winds will blow them forward to permanent leadership, before it ever becomes strong enough to budge from the starting point their inertia-bound fellows.

October—November—December of 1931.

The companies which will be business leaders in the automotive industry before the end of 1932 must already see those three months as months of great opportunity!

LOGGERS HOT FOR TRUCKS FOR WORK ON ICE ROADS

CONTINUED FROM PAGE 36

perience to the varying conditions of each operation.

"In the past, caterpillar tractors have often been used in place of horses. In my opinion, trucks will prove even more useful than tractors. While trucks will not haul loads quite so large as tractor-sleigh units, they move quicker, require a smaller investment, are cheaper to operate, and can be used for many other purposes. At the present price of trucks, gas and oil, I believe trucks can haul cheaper than horses or tractors."

Mr. Ostergaard reached these opinions after an extended observation of the operations of J. C. Campbell, Jr. In regard to the load capacity of trucks and trailers, he explained that the maximum weight which a truck might haul in one load depends on the character of the road, and, conversely, the durability of the road depends on the amount of logs to be hauled over it.

Logging roads are built by the logger. Before the frost comes, the logger clears the way of brush and trees and levels the rough spots. Then when cold weather arrives he sprinkles the road with water until the road has an iced surface a foot in depth. This surface is maintained with snow and water as long as the road is needed.

"Supposing," said Mr. Ostergaard, "a logger calculates that his total hauling costs must not exceed \$1 per thousand board feet of logs. If there are only a few thousand feet of logs to take out, obviously he cannot afford to spend very much per mile for road building.

"On the other hand, if the road building cost can be prorated over several million board feet, he can afford to spend more to make roads that would support larger trucks and loads.

"An individual truck cannot, however, be expected to haul a larger load than a sleigh on a level or very slightly down-grade road, because the sleigh, built of solid beams, can support as much as can be placed on it. Thereafter it's a matter of motive power. It is particularly on the uphill or downhill run that the horse-sleigh combination cannot compete with the truck."

It was estimated that the truckloads in Mr. Campbell's operations ran from three to four tons each—a matter of approximately 1000 board ft. per load. Seven Fords made up his fleet.



THEORY AND PRACTICE

STRIKE A BALANCE

WITH K RIMS

The Theory of An Ideal Truck Rim

The Practical Application of Theory in K-Rim

- | | |
|--|---|
| 1 <i>Simple Design</i> | Two parts—All sizes |
| 2 <i>Light Weight</i> | Minimum weight obtained by proper distribution of steel which in turn produces |
| 3 <i>Ample Strength</i> | Maximum strength at points of greatest strain |
| 4 <i>Ease of Operation</i> | Open valve stem slot and split base permit easy removal of rim from the tire and prevents injury to casing, tube and valve stem |
| 5 <i>Safety in Service</i> | Split base is locked between wheel and continuous side ring—mechanical locked assembly |
| 6 <i>Interchangeable Mounting</i> | All sizes single bevel 28° or 18° mounting seat permits oversizing and maintains standard spacings |

In combination—these fundamental features of the Goodyear K-Rim
are not equaled by any other truck rim

GOOD YEAR

K-28 RIMS K-18

THE MAN WHO CHANGES THE TIRES LIKES GOODYEAR "K" RIMS

The Commercial Car Journal

September, 1931

SHULER

TRAILER AXLES

"CALL YOUR SHOT"

The trailer industry in providing a more flexible means of transportation has opened up greater possibilities in axle manufacturing.

Our experience in manufacturing trailer axles has been so diversified that we are able to meet any situation.

A complete line for
TRACTORS and TRAILERS
and FRONT AXLES
for
MOTOR TRUCKS and BUSES

SHULER AXLE COMPANY, INC.
Louisville, Kentucky



CUSTOMER SATISFACTION ?

... can you give it better alone or with Fruehauf cooperation?



WHEN a business man buys a truck he buys transportation as measured by profit miles. If he finds he has obtained the lowest ton-mile haulage costs he is satisfied. If not, he is naturally disgruntled and has no friendly feeling for those responsible.

Fruehauf transportation engineers can help you provide equipment which will deliver the lowest ton-mile haulage cost for your prospective customers. They make a careful study of every hauling problem involved and cooperate with you in working out the most practical and efficient recommendations. You will have proved haulage-cost figures to help you close your sales.

Whatever the specific hauling problem, there is the right Fruehauf Trailer to meet

it. And this trailer is designed and built to fit all the requirements. It is an engineered part of a scientifically engineered unit of transportation. Fruehauf Trailers have the highest resale value. Depreciation is extraordinarily low. Any finance company will gladly finance a Fruehauf Trailer job.

This is the day of cost-cutting programs. You can serve your customers better in every way by letting Fruehauf cooperate with you in providing lowest ton-mile haulage equipment. An interesting book of facts — "Engineered Transportation" — which tells the complete Fruehauf story will be sent to you without obligation. Write today.

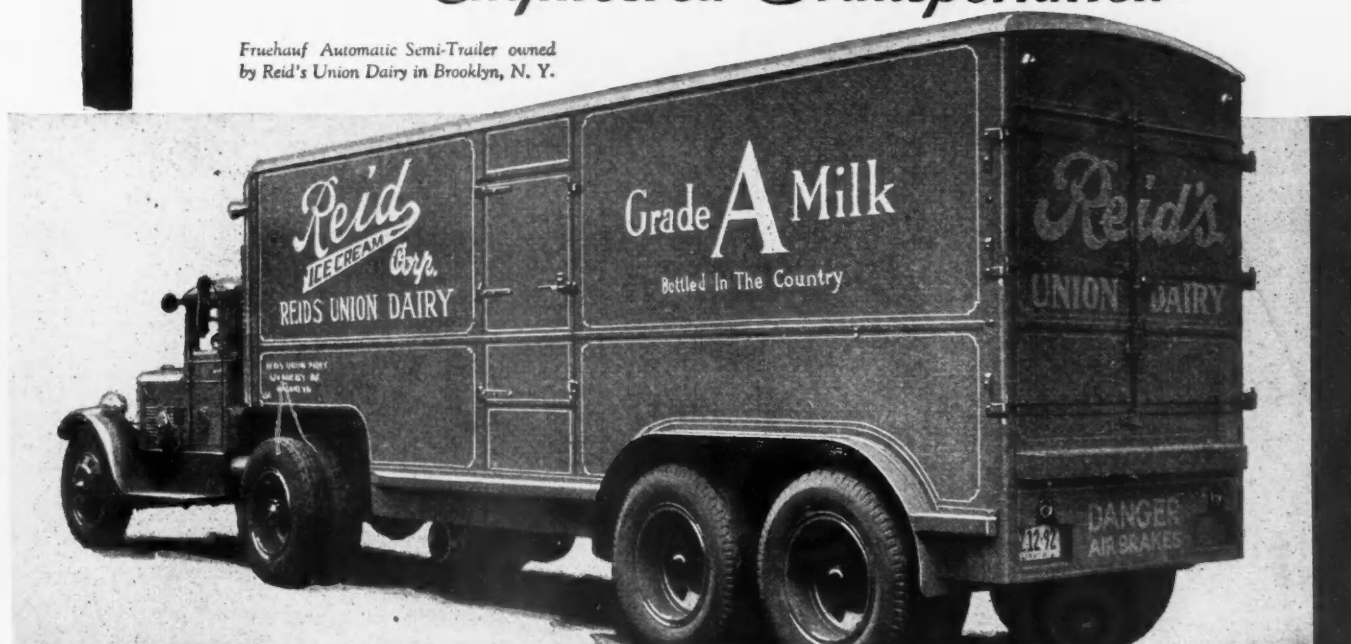
FRUEHAUF TRAILER COMPANY
Branches and Distributors in all Principal Cities
10957 Harper Avenue Detroit, Michigan



FRUEHAUF TRAILERS

"Engineered Transportation"

Fruehauf Automatic Semi-Trailer owned by Reid's Union Dairy in Brooklyn, N. Y.



TYSON

CAGELESS

TAPERED

ROLLER...

BEARINGS

Cooler AT HIGHER SPEEDS BECAUSE THEY ARE CAGELESS

Two years of continuous tests have proved that the cageless principle of Tyson Tapered Roller Bearings is sound in practice as well as in theory.

Because the cage is eliminated, sources of heat-breeding friction are reduced to the vanishing point. Tyson bearings can operate—and do operate—for hundreds of hours on end under full load at tremendous speeds, maintaining satisfactory low temperatures.

The double-ribbed backplate, which gives each roller a double bearing—one on each side of its axis of rotation—is inherent alignment for each roller—and allows elimination of the cage and its heating friction. The rollers run free as the wind, carrying their load on the "taper." Their contact with the end plate is extremely light—just enough for alignment.

Tyson Cageless bearings are virtually friction free with resulting maximum resistance to wear at all required speeds.

30 to 50 per cent more rollers, occupying the space gained by discarding the cage, means proportionately more load capacity. True inherent alignment means enduring precision.

Size for size, Tyson bearings are interchangeable with all ball and roller types.



TYSON ROLLER BEARING CORPORATION

MASSILLON · OHIO

Brown-Marx Bldg., Birmingham, Alabama
7310 Woodward Ave., Detroit, Michigan
Oliver Building, Pittsburgh, Penn.
1900-Euclid Building, Cleveland, Ohio
Flatiron Building, New York City
602 West Randolph St., Chicago, Ill.



"2500 Ford commercial units

play important daily part in nation-wide delivery service" says Standard Brands Inc.

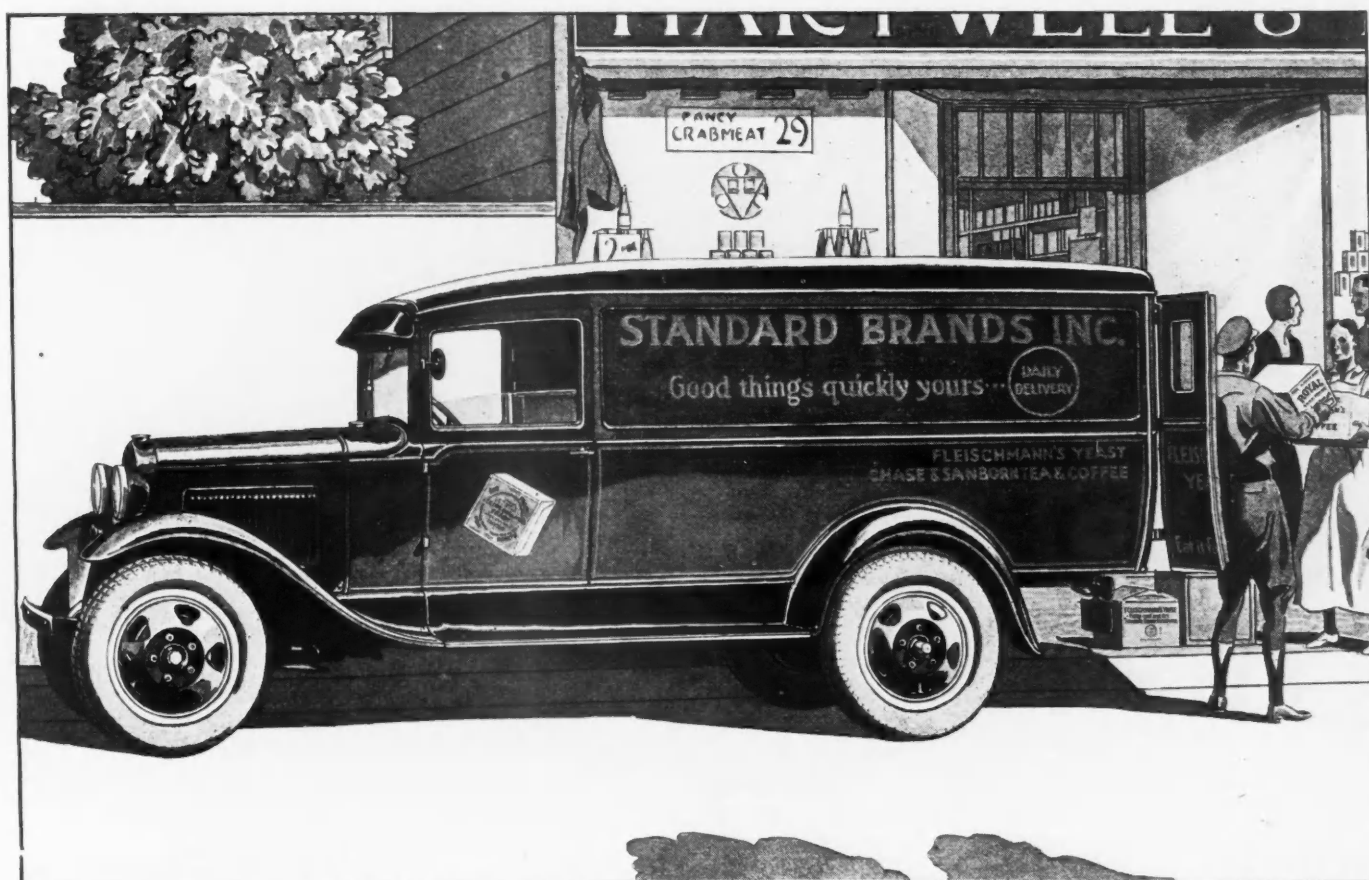
IT IS significant that Standard Brands Inc. should select Ford trucks and light-delivery cars for their daily delivery service, encompassing the entire country. It is graphic testimony of the reliable strength, versatile performance, and lasting service built into Ford units that they are giving complete satisfaction under the greatly different operating conditions they meet in this widespread use.

Of equal importance is the record of economy made by these Ford units. Standard Brands Inc. have found Fords particularly adapted for their service on account of uniformly low cost of operation and maintenance.

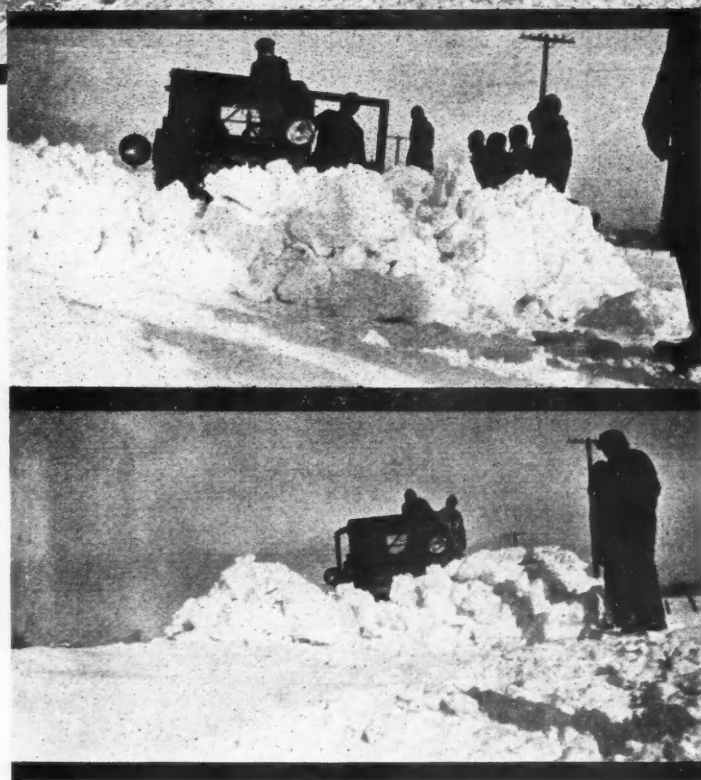
In every line of business, Ford units are serving fleet owners and small operators alike.

There is a standard Ford type for every hauling need. More than forty different bodies are available. With the 1½-ton truck, there is a choice of 131½-inch or 157-inch wheelbase, open or closed cabs, high or low rear-axle gear-ratios, and single or dual rear wheels. In addition, there is the Ford light-delivery car, offering speedy, alert performance, reliability, long life, and economy, for every light-hauling purpose.

There is a Ford unit for the specific needs of your business, available, in a choice of thirty-eight different color-combinations, from any Ford dealer. In principal cities, there are centralized exhibits of Ford trucks and light delivery cars.



The OSHKOSH 4-WHEEL DRIVE



● Oshkosh trucks are made to do the "hard-to-do" work. Snow removal is just another job for an Oshkosh 4-Wheel Drive.

● Now is the time to buy your snow removal equipment. Write today for details on Oshkosh Trucks.

for snow removal!

The public expects clear roads in Winter—Equip with "OSHKOSH" 4-Wheel Drives and enjoy, with other countries, June road conditions throughout the year. The "OSHKOSH" 4-Wheel Drive has more power and traction—consequently, throws the snow well off the highway.

The rugged, yet simple, construction of the "OSHKOSH" assures low operating costs.

The "OSHKOSH" 4-Wheel Drive steers easily and has ample speed.

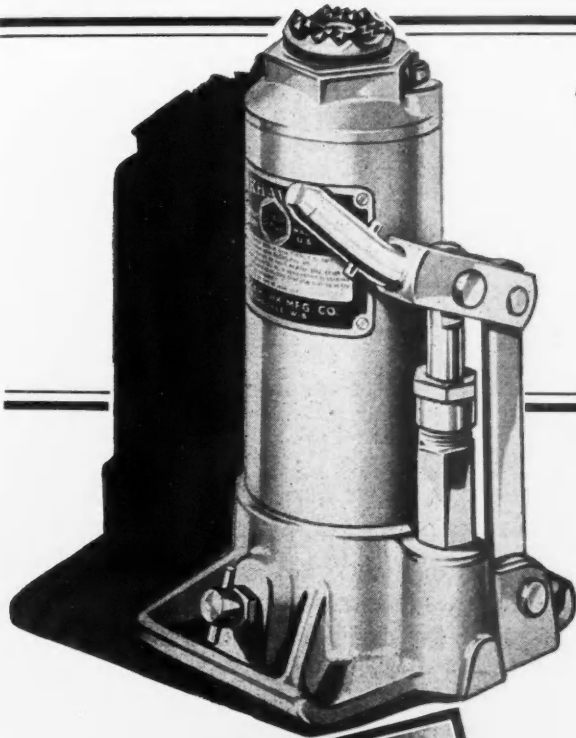
Models 2½ to 5 ton.

The "OSHKOSH" Snow Special, 105 h.p. at governed speed, and the "OSHKOSH" Snow Chief, 112 h.p. at governed speed, are the 2 most popular models.

Write us for further information.

Some good territory available for dealers.

OSHKOSH MOTOR TRUCK, INC., OSHKOSH, WISCONSIN



This Hydraulic Jack Takes the Labor Out of Lifting

Lifting is just one of many uses you have in your shop right now for the Blackhawk Hydraulic Jack.

Speeds Up Shop Jobs

You need Blackhawk Jacks for road, floor, and shop service—they are so much faster and handier than other types. You need them for pressing, bending, and many other shop operations that call for portable power units.

Pays Big Resale Profits

You need Blackhawks for *resale too*. There's an active demand for the truck models—now that most of the best known heavy duty trucks are factory-equipped with Blackhawks. The line is complete—26 models, from 1 to 75-ton capacities.



Jack shown above cuts is BA 8.5 — a 2½ ton model with right power, lowness, and lift for most 2-3 ton trucks. Other truck models — 3, 4½, 7, 12-ton.



Get Blackhawk Data

Use the Coupon—get our literature—study the superior features of Blackhawk design—see how the long life, trouble-proof operation, and overload capacity are built into these wonderful jacks. Ask your Jobber Salesman. Mail the coupon today.

BLACKHAWK

BLACKHAWK MANUFACTURING CO.,
Dept. CO, Milwaukee.

Interested in Hydraulic Jacks, capacity
—tons. Send literature.

Name

Address

Our Preferred Jobber

Advantages of an Eight for Trucks

- 1—Smooth power; less vibration
- 2—Speedier than "6" of same h.p.
- 3—Less weight per horsepower
- 4—More satisfied drivers
- 5—No greater maintenance cost
- 6—More ton miles per year . . .
- 7—Next step in truck progress
- 8—Follows passenger car trend
- 9—Especially suited to long hauls
- 10—Use "6" or "8" on same chassis

No. 8*

Follows Passenger Car Trend

The motor truck has always followed the passenger car in the addition of improved features—and every improvement thus adopted has added to commercial car progress. The self-starter, four-wheel brakes, more attractively designed chassis and body—these and other developments were adopted by commercial car builders, after they had proved their worth on the passenger car. Motor improvements have been similarly followed. Six-cylinder trucks appeared after the six-cylinder passenger car had demonstrated its superiority over the four. With the present marked trend of passenger cars to the eight, it was inevitable that truck manufacturers also should seek the reserve power, greater speed, flexibility, and smoothness of overlapping power impulses that are possible only with an eight-cylinder car. Now the Lycoming AEC eight-cylinder truck engine makes available these and many additional advantages.

An Eight Cylinder Truck Engine Backed by More Than Seven Years' Experience

It is logical that Lycoming should pioneer the eight-cylinder truck engine. Because Lycoming was one of the pioneers of the Straight Eight engine in passenger cars. The experience thus gained has now been directed toward producing an eight-cylinder motor specially designed for truck and bus use. Several leading makers of commercial cars are building trucks with Lycoming AEC eight-cylinder engines. Write us for their names.

Lycoming Series AE Straight Eight Commercial Car Engines
3 $\frac{3}{4}$ x 4 $\frac{3}{4}$, 130 H.P., L-Head Type—Piston Displacement
420 cubic inches.
Furnished with provision for 6-ft. Air Compressor, if desired.

*If you are interested in having a complete set of these advertisements, "Advantages of an Eight for Trucks," write us for reprints of Numbers 1 to 7, inclusive.



LYCOMING MANUFACTURING COMPANY
WILLIAMSPORT, PENNSYLVANIA

BOSCH

ROBERT BOSCH A.G.

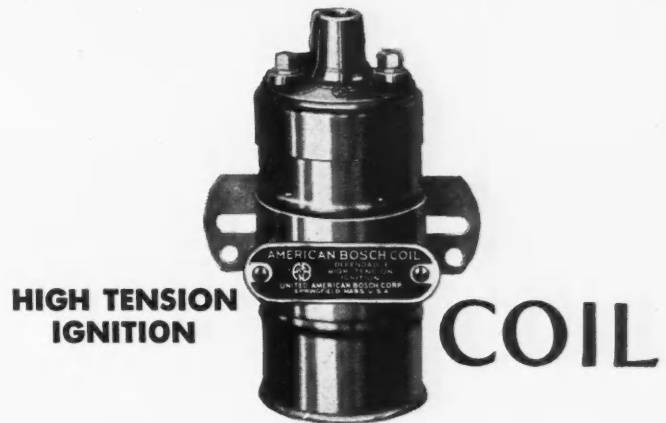
AMERICAN - BOSCH -



THE thousands and thousands of Bosch Pyro-Action Spark Plug users the world over have given and continue to give them a reputation for true performance and dependable service that is unmatched by any other spark plug.

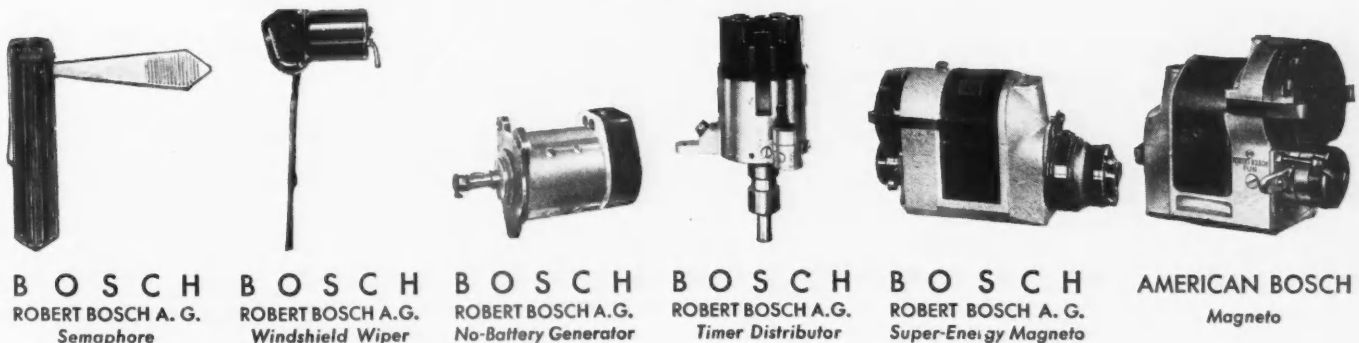
They have eliminated spark plug troubles for important fleet owners all over the country. They are longer lived, more economical and more dependable than any other standard plug.

Start equipping your motors now and eliminate spark plug troubles.



THE entire series of the new American Bosch High Tension Ignition Coils is adaptable to all types and sizes of internal combustion engines using battery ignition, and each coil is absolutely dirt proof, water-proof and oil proof.

The new American Bosch coil is of advanced and revolutionary design. They are made in: a Standard 6 volt coil, a Universal 6 volt coil, a Multi-speed 6 volt coil, and a Multi-speed 12 volt coil. Write now to the factory or the nearest branch for complete information on any or all of these lines.



B O S C H
ROBERT BOSCH A. G.
Semaphore

B O S C H
ROBERT BOSCH A. G.
Windshield Wiper

B O S C H
ROBERT BOSCH A. G.
No-Battery Generator

B O S C H
ROBERT BOSCH A. G.
Timer Distributor

B O S C H
ROBERT BOSCH A. G.
Super-Energy Magneto

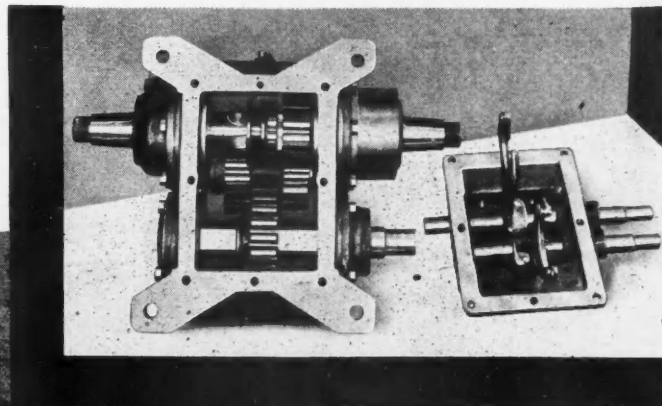
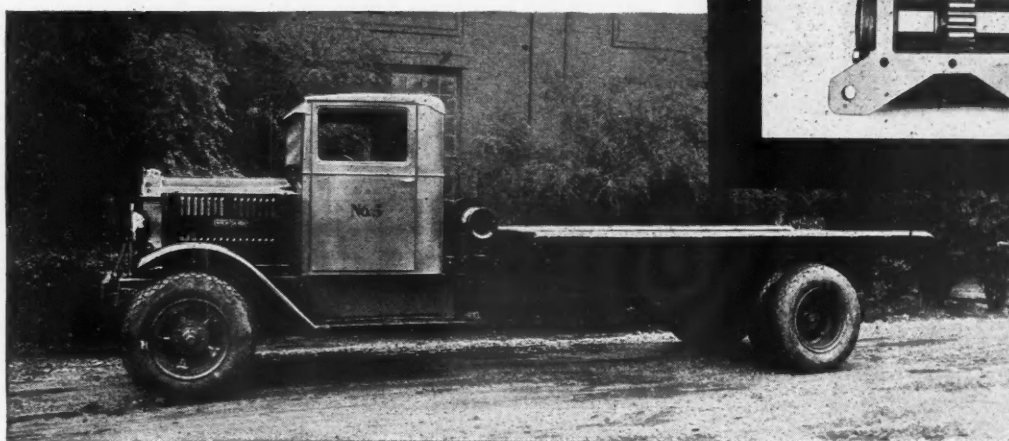
AMERICAN BOSCH
Magneto

PRODUCTS OF ROBERT BOSCH A. G.
STUTT GART, GERMANY. SOLD BY

PRODUCTS OF AMERICAN BOSCH
MANUFACTURED BY

UNITED AMERICAN BOSCH CORPORATION
SPRINGFIELD, MASS. Branches: NEW YORK CHICAGO DETROIT SAN FRANCISCO

Wichita trucks carry 12-ton loads... Nickel Steel parts, of course



Above: Transmission used in Wichita trucks. All gears, shafts and forks of 3½% Nickel Steel (S. A. E. 2315).

Left: Wichita truck designed for oil field service mfd. by WICHITA FALLS MOTOR COMPANY, Wichita Falls, Texas.

- Carrying loads up to 25,000 lbs. over the sort of roads that tax truck stamina ... Wichita trucks are specially built to withstand strenuous oil field service. Consequently only quality materials, such as Nickel Alloy Steels, are specified.
- A special feature of Wichita trucks is the new type split propeller shaft power take-off transmission. The advantages of ingenious design have been enhanced through the use of 3½% Nickel Steel for all gears, shafts and forks.
- Years of dependable performance in both the automotive industry and in the oil fields have demonstrated the inherent reliability of Nickel Alloy Steels. You are invited to consult our engineers when designing new products and new equipment...and about material problems involving the use of alloy steels.

Send for Bulletin No. 9 "Physical properties of Nickel and Nickel-chromium Steel"

THE INTERNATIONAL NICKEL COMPANY, INC., 67 WALL STREET, NEW YORK, N. Y.

Miners, refiners and rollers of Nickel...Sole producers of Monel Metal





Cut Operating Costs with FIRESTONE Balloons

"The combination of Firestone All Non-Skid Balloons with Firestone Puncture-Proof Tubes has solved our tire problems," writes Dolese Bros. Co. of Oklahoma City. "In fact, the service has been so satisfactory . . . road delays reduced to an absolute minimum . . . that on the strength of it, we just recently placed an additional order for two more trucks on which we specified the same combination—Firestone All Non-Skid Balloons and Firestone Puncture-Proof Tubes."

In the cement business—with loads

"mixed in transit"—road delays are costly. Perhaps in your business they are even more so. At all events, they're worth eliminating. Why don't you do what Dolese Bros. did — INVESTIGATE Firestone Tires and Firestone Service? The Firestone Dealer near you will gladly put all the facts and figures before you—and let you decide. Whether your trucks are light or heavy—for city delivery or long hauls—you'll find that Firestone Balloons will reduce road delays and cut operating costs.

Firestone

TRUCK BALLOONS

© 1931, F. T. & R. Co.

TIRES • TUBES • BATTERIES • BRAKE LINING • SPARK PLUGS • ACCESSORIES

The Commercial Car Journal

September, 1931

★ ★ ★ THE HEAVY DUTY LINE OF ★ ★ ★

WALKER JACKS

LIFTING EQUIPMENT THAT STANDS THE GAFF IN SERVICE



Brute equipment for brute service—that is what Walker offers you in this one complete line of heavy duty jacks. Jacks that have the stuff built into them—the strength, stability and safety to stand up and deliver the service you want every day for years. Jacks with distinctive features that make them always dependable and mighty convenient to use. Jacks that are designed right and built right for maximum operating ease and convenience. Jacks that will speed up your service work and save you far more than they cost. Roller jacks—mechanical and hydraulic—and all other desired types—and a range of sizes to meet every requirement. When you are thinking about jacks, see what Walker offers. There is a Walker jobber near you who will gladly show you the complete line. **WALKER MANUFACTURING CO., RACINE, WIS.**

NEW—No. 845 Hydraulic—the sturdiest and most convenient jack equipment that can be had for lifts up to 12 tons. A precision-made hydraulic lifting unit in a jack that's built to stand the punishment of everyday service. Height 9"—raise 5 $\frac{3}{8}$ "—with 3 $\frac{3}{4}$ " screw extension for variable starting heights.

Hydraulic jacks for heavy duty and general garage work. Five sizes—from 3 to 12 ton capacities.

Triple extension enclosed screw type. Capacity 2 $\frac{1}{2}$ tons. Also—three sizes of single screw jacks—2 $\frac{1}{2}$ to 6 ton capacities.

Rigid Rack adjustable auto supports. Three sizes—2 to 7 tons. Every repairman needs a pair.

NEW—No. 780 Walker Roll-A-Car (hydraulic type), capacity 7 $\frac{1}{2}$ tons. Long, low-built frame gets under any lifting point—and exceptional range (6 inches to 22 inches) takes care of any lift required. Counter-balanced for quick positioning—big, broad, drop-forged cap on sturdy bearing—positive safety features—and many other advantages that only Walker offers.

★ ★ ★ IF IT ISN'T A WALKER — IT ISN'T A ROLL-A-CAR ★ ★ ★

DIAMOND-T

announces

a **NEW**
2-TON TRUCK
\$1095

TO put it bluntly, the plain truth about this new Diamond T, if simply stated without proof, is too sensational to be believed.

Diamond T, whose word has stood unbroken through 25 years of progress in the truck industry, here introduces "11% more truck, for 25% less money" than you can obtain elsewhere, and PROVES IT, right here!

The table at the right shows how this great truck compares with its ten leading competitors in size, power, and capacity. Specifications on the next page prove that Diamond T quality goes all the way through.

Model 316, with its previously announced companion 1½-ton model 216, is Diamond T's answer to today's business conditions. These trucks are selling *in volume* in the toughest truck market ever known.

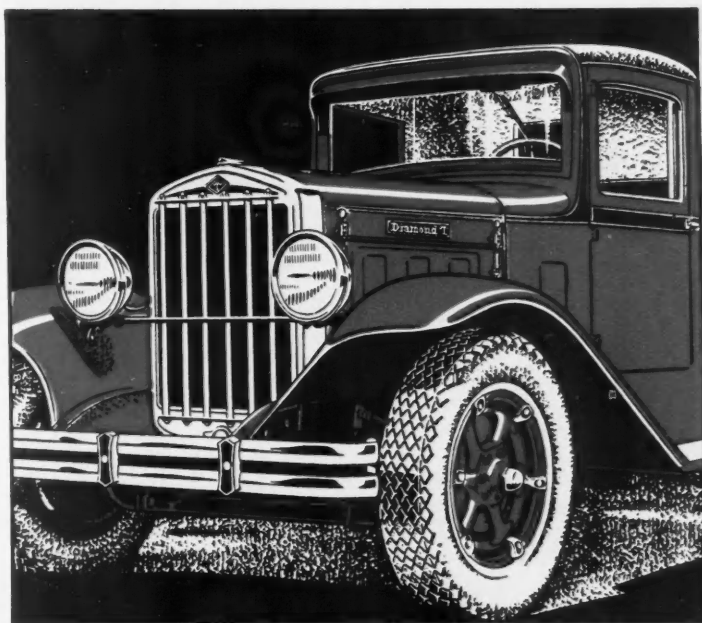
Diamond T dealers are making money, and will make more money, because Diamond T has found the real "self-starter" to better business. You can't afford not to write for the full story . . . you ought to wire for it.

In addition to the superiorities shown at the right, Diamond T standard equipment includes a great many other items not customarily found in other 2-ton trucks. Read and compare the list of features of this great truck on the next page.

DIAMOND-T MOTOR CAR CO.

C. A. Tilt, President

Factory and General Offices, West 26th St., Chicago



11% more truck!
25% less money!

	Chassis Weight	Piston Displacement cu. in.	Gross Capacity* Pounds	Price
Diamond-T Model 316	4400	263	11500	\$1095
Truck "A"	4050	248	9000	1525
"B"	3780	208	10175	1425
"C"	4580	248	10500	1855
"D"	3385	257	9000	1245
"E"	4032	224	8967	1450
"F"	4025	268	13600	1645
"G"	3725	224	9000	1595
"H"	4080	248	9000	1485
"I"	3810	205	9600	895
"J"	3958	224	9658	1495
Average of 10 competitors	3942.5	235.4	9850	1461.50
Diamond-T Model 316	4400	263	11500	\$1095
Diamond-T Superiority	11.6% more	11.7% more	16.5% more	25% less

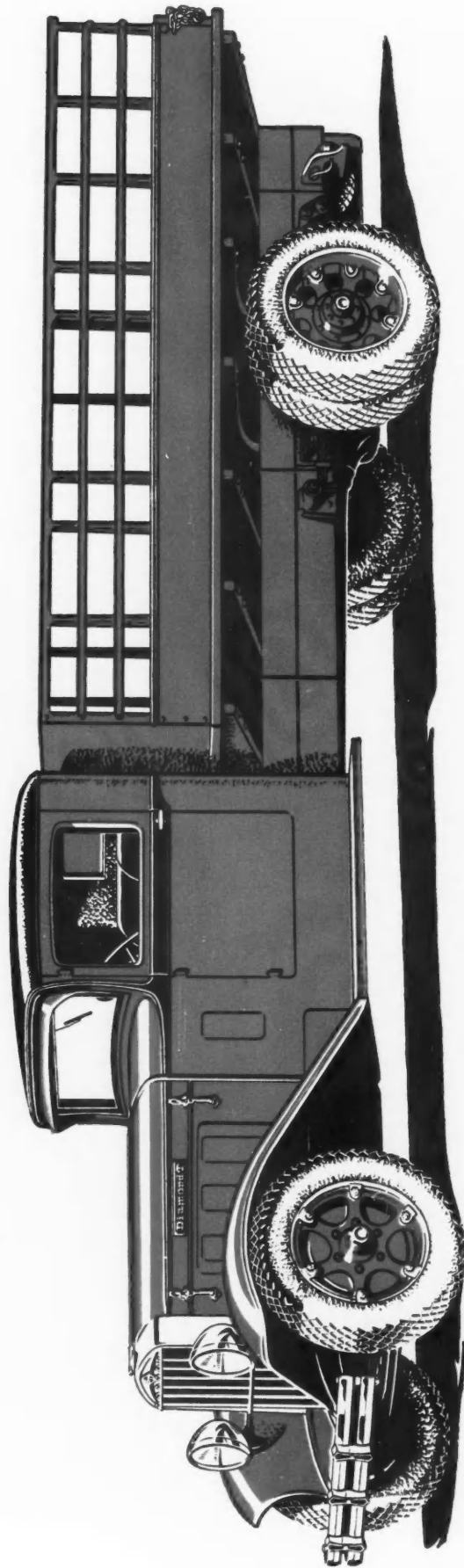
* Maximum total weight of chassis, cab, body and load

HERE IS CONCRETE EVIDENCE OF "MORE TRUCK FOR THE MONEY"

IF you know trucks well enough to judge specifications accurately, read these proofs of heavy-duty quality. If you are no judge, ask your shop superintendent—he knows what such quality engineering means in a truck!

- ✓ 6-cylinder truck engine, $3\frac{5}{8} \times 4\frac{1}{4}$ ", 263 cubic inches piston displacement. Develops over 65 horsepower at 2400 r.p.m.
- ✓ 7-bearing balanced crankshaft.
- ✓ Gear-driven water pump and accessory shaft.
- ✓ Light-weight pistons.
- ✓ Down-draft carburetion and manifold.
- ✓ Water-jacketed valves, large capacity cooling system.
- ✓ Pressure lubrication. Air cleaner.
- ✓ Full-floating rear axle, with one-piece cast steel housing. Nine large roller and ball-bearings.
- ✓ Large 4-wheel Lockheed hydraulic brakes, with rear drums $3\frac{1}{2}$ " wide, cast of alloy iron.
- ✓ Helper springs in rear.
- ✓ All spring leaves of alloy steel — no carbon steel.
- ✓ Front springs compression-shackled in live rubber and fore-shackled to banish wheel fight and shimmy.
- ✓ Heavy-duty fin and flat tube radiator, with full chromium plated shell.
- ✓ Pressed steel frame of taper design, 4 cross members—depth 7", flange 3", thickness $\frac{7}{32}$ ", with special "alligator-jaw" reinforcement.
- ✓ Ross cam-and-lever steering gear, ball bearing head.
- ✓ 6:50-20 balloon tires, duals rear, on metal spoke wheels.
- ✓ 4-speed truck transmission of most modern type — special full involute tooth contour of constant mesh and third speed gears promotes long life without excessive wear. Ball and roller bearings.
- ✓ Spicer universal joints and drive-shaft.
- ✓ 155" standard wheelbase takes bodies to 11 ft. Special 167" wheelbase at extra cost for bodies to 13 ft. and 137" wheelbase for dump bodies and tractor-trailer service.

THE NEW DIAMOND ♦ T 2-TON 6-CYLINDER MODEL 316 . . . \$1095



COMMERCIAL CAR JOURNAL

TABLE OF TRUCK SPECIFICATIONS

Corrected Each Month From Data
Supplied Direct by Manufacturers

(KEY TO REFERENCES ON PAGE 78)

Tractor Trucks

Make, Model and Capacity	General			Gear Set		Rear Axle		For Corresponding Truck Model, See Specifications Under Tonnage Noted														
	Chassis Price	Standard W.B.	Gross Vehicle Wt. See Key Note	Chassis Wt. Stripped	Make and Model	Location	No. of Forward Speeds		Aux. Locat. and Speeds	Gear Ratios												
										Reduc. in High	Reduc. in Low											
Make, Model and Capacity	General			Gear Set		Rear Axle		For Corresponding Truck Model, See Specifications Under Tonnage Noted														
	Chassis Price	Standard W.B.	Gross Vehicle Wt. See Key Note	Chassis Wt. Stripped	Make and Model	Location	No. of Forward Speeds		Aux. Locat. and Speeds	Gear Ratios												
										Reduc. in High	Reduc. in Low											
A.C.F. TT175A	155	75000	11000	BL1714703	U	12	Op	7.48	137	T-175A	Indiana. 170	138	29750	6800	B-L	U	4	No	6.41	46.6	170	
A.C.F. TT175B	155	60000	10250	BL1714703	U	12	Op	7.46	135	T-175B	Indiana. 195	138	34125	7900	B-L	U	4	No	6.8	49.5	195	
A.C.F. TT160	155	60000	9700	BL1714703	U	12	Op	7.46	135	T-160	Indiana. 220	138	38500	9200	B-L	U	4	No	6.96	50.8	220	
Autocar. DT	3500	140	20000	5300	B-L 51	U	4	No	6.27	33.5	D-2	Indiana. 190	139	33250	7625	B-L	A	4	No	7.75	78.6	190
Autocar. SHST	4800	104	40000	7900	Own T	U	4	No	10.4	66.6	SHS	Indiana. 250	146	43750	10000	B-L	A	4	No	8.15	63.7	250
Autocar. BCHST	4800	145	40000	8260	Own T	U	4	No	10.4	66.6	SHCS	Indiana. 290	146	52500	10750	B-L	A	7	No	10.0	95.0	290
Autocar. FT	6800	154	60000	11000	B-L 70	U	7	No	11.66	109	F	International. A-L 3	1450	138	4032	W-G T7	U	4	No	6.50	42.9	AL-3
Brockway. 90	137	15750	3850	B-L	U	4	No	5.12	20.9	90	International. B-2	675	136	2935	W-G T9	U	4	No	6.16	39.5	A-2	
Brockway. 140	138	24500	5900	B-L 51	U	4	No	6.6	35.3	140	International. B-2	725	136	2939	M. M. 'O'	U	5	No	6.16	47.8	B-2	
Brockway. 170	138	29750	6800	B-L	U	4	No	16.4	46.6	170	International. A-4	1880	145	5221	Own A5	U	5	No	7.16	52.6		
Brockway. 195	138	34125	7900	B-L	U	4	No	6.8	49.5	195	International. A-5	2550	140	5836	Own A-5	U	5	No	8.50	76.8	A-5	
Brockway. 220	138	38500	8260	B-L	U	4	No	6.98	50.7	220	International. A-6	2875	156	6120	Own	U	5	No	6.85	60.5	W-1	
Brockway. 190	139	33250	7625	B-L	U	7	No	7.75	78.6	190	International. W-1	3850	130	8100	Own	U	5	No	7.85	70.5	W-3	
Brockway. 250	146	43750	10000	B-L	U	4	No	8.75	83.7	250	International. W-3	4850	144	10100	Own	U	5	No	7.2	51.0	M-2	
Brockway. 290	146	52500	10750	B-L	U	7	No	10.1	95.0	290	LaFrance Rep. M-2T	147	20000	7700	Ful VUOG	U	4	No	7.33	46.3	35-2	
Chicago 1-70-D	20T	159	8940	B-L 60 Max	A	7	No	7.6	77.2		LaFrance Rep. 35-2T	147	24000	9400	Ful MHU	U	4	No	4.90	24.2	BL	
Condor. CB	118		3875	Cov A-4 J	U	4	No				Mack. BL 2 Ton	2500	138		Own BL	U	4	No	8.87	49.0	AB	
Condor. CC	122		4820	Cov W4J	U	4	No				Mack. BG 3 Ton	3000	138		Own BG	U	4	No	5.1	24.6	AB	
Condor. CD	122		5020	Cov W4J	U	4	No				Mack. AB 5-6 Ton	3500	123		Own AB	U	4	No	6.69	39.1	BC	
Condor. CF	118		5200	Cov Rus	U	4	No				Mack. AB 5-6 Ton	4300	123		Own BG	U	4	No	7.17	46.1	BC	
Condor. CGW	153		8950	Cov Rus	U	4	No	6.3	41.0		Mack. BC 6-8 Ton	5250	142		Own BC	U	4	No	4.25	22.4	BJ	
Corbitt. 9B6T	139	18000	4200	BL-214	U	4	No	6.8	43.6		Mack. BK 7-10 Ton	5800	142		Own BJ	U	4	No	5.14	38.5	AK	
Corbitt. 12B6T	152	20000	4955	BL-51	U	4	No	7.40	48.8		Mack. BJ 7-10 Ton	6150	138		Own AK	U	4	No	6.46	41.5	AC	
Corbitt. 15B6T	157	25000	5980	B-L 51-5	U	5	No	7.80	46.5		Mack. AK 7-10 Ton	5150	134		Own AC	U	4	No	7.06	45.3	AC-6	
Corbitt. 18B6T	159	30000	7600	BL-615	U	5	No	7.33	48.0		Mack. AP 20 Ton	9500	191		Own AP	U	4	No	7.06	45.3	AC6.6	
Corbitt. 24D6T	165	40000	9200	BL-70	U	7	No	8.15	76.6		Mack. AC-20 6 wh.				Own BK	U	4	No	7.06	45.3	AP-6wh	
Diamond T. 216	695	135	14000	3300	War	U	4	No	Opt	Opt	216				Own BK	U	4	No	7.06	45.3	AP-6wh	
Diamond T. 303	1645	137	20000	4800	Cov	U	4	No	Opt	Opt	303				Own BK	U	4	No	7.06	45.3	AP-6wh	
Diamond T. 304	2710	135	24000	6200	Cov	U	4	No	Opt	Opt	304				Own BK	U	4	No	7.06	45.3	AP-6wh	
Diamond T. 316	1155	137	17000	4400	War	U	4	No	Opt	Opt	316				Own BK	U	4	No	7.06	45.3	AP-6wh	
Diamond T. 504	2710	131	28000	5800	Cov	U	4	No	Opt	Opt	551				Own BK	U	4	No	7.06	45.3	AP-6wh	
Diamond T. 603	3360	147	32000	7300	Cov	U	5	No	Opt	Opt	603				Own BK	U	4	No	7.06	45.3	AP-6wh	
Diamond T. 750	4730	147	40000	8300	Cov	U	5	No	Opt	Opt	750				Own BK	U	4	No	7.06	45.3	AP-6wh	
Dodge Bros. F40	1995	150	14590	5173	Own	U	4	No	6.38	55.2	F-40				Own BK	U	4	No	7.06	45.3	AP-6wh	
Dodge Bros. F60	2645	146	18979	5543	Own	U	4	No	8.44	57.8	F-60				Own BK	U	4	No	7.06	45.3	AP-6wh	
Federal. A6TW	2360	140	25000	5050	Own	U	4	No	8.75	52.9	A6TW				Own BK	U	4	No	7.06	45.3	AP-6wh	
Federal. T10W	2915	143	32000	6495	Own	U	4	No	8.75	52.9	T10W				Own BK	U	4	No	7.06	45.3	AP-6wh	
Federal. U6	3860	143	43000	7155	B-L 60	A	7	No	8.5	83.1	U6				Own BK	U	4	No	7.06	45.3	AP-6wh	
Federal. 4C6A	4735	144	50000	8120	B-L 60	A	7	No	9.00	86.5	4C6A				Own BK	U	4	No	7.06	45.3	AP-6wh	
Federal. 4C6AB	4960	144	50000	8505	B-L 60	A	7	No	9.00	86.5	4C6AB				Own BK	U	4	No	7.06	45.3	AP-6wh	
Federal. X8	5085	155	65000	9660	B-L 60	A	7	No	11.7	110	X8				Own BK	U	4	No	7.06	45.3	AP-6wh	
Federal. X8R	5810	155	65000	10385	B-L 60	A	7	No	11.7	110	X8R				Own BK	U	4	No	7.06	45.3	AP-6wh	
(X) Gen. M. 2216 2 1/2-3	885	130	14000	2990	Own	U	4	No	6.8	37.8					Own BK	U	4	No	7.06	45.3	AP-6wh	
(X) Gen. M. 2513 2 1/2-3	1345	130	14500	3575	Own	U	4	No	6.8	34.5					Own BK	U	4	No	7.06	45.3	AP-6wh	
(X) Gen. Mot. T263 3-4	1450	130	17000	3905	Own	U	4	No	6.60	33.5					Own BK	U	4	No	7.06	45.3	AP-6wh	
(X) Gen. M. 3204 3-4 1/2	1700	141	19000	4705	Own	U	4	No	6.43	32.7	T-30				Own BK	U	4	No	7.06	45.3	AP-6wh	
(X) Gen. Mot. T-31 4-5	1845	141	20000	4695	Own	U	4	No	6.43	32.7	T-31				Own BK	U	4	No	7.06	45.3	AP-6wh	
(X) G. Mot. 4201 4-5 T	1845	141	20000	4725	Own	U	4	No	6.14	36.2	T-42				Own BK	U	4	No	7.06	45.3	AP-6wh	
(X) G. Mot. 4404 5-6 T	2065	141	25000	5095	Own	U	4	No	6.45	48.0	T-44				Own BK	U	4	No	7.06	45.3	AP-6wh	
(X) Gen. Mot. T515 6-12	2625	155	25000	6250	Own	U	4	No	7.14	44.1	T-51				Own BK	U	4	No	7.06	45.3	AP-6wh	
(X) Gen. M. T556 7-12	2750	155	27500	6390	Own	U	4	No	9.45	58.4	T-55				Own BK	U	4	No	7.06	45.3	AP-6wh	
(X) G. Mt. 6208 7 1/2-8 1/2	3250	154	34000	7150	Own	U	4	No	10.7	65.9					Own BK	U	4	No	7.06	45.3	AP-6wh	
(X) Gen. M. T617 8-10	3525	154	34000	7045	Own	U	4	No	10.7	65.9					Own BK	U	4	No	7.06	45.3	AP-6wh	
(X) G. Mt. 8205 8 1/2-10	3970	155	37000	7735	Own	U	12	A	12.3	171	T-82				Own BK	U	4	No	7.06	45.3	AP-6wh	
(X) G. Mt. 8206 10-12 T	4055	155	45000	7880	Own	U	12	A	12.3	171	T-82				Own BK	U	4	No	7.06	45.3	AP-6wh	
(X) Gen. Mot. T83-10-12	4275	155	45000	8065	Own	U	12	A	12.3	171					Own BK	U	4	No	7.06	45.3	AP-6wh	
(X) Gen. Mot. T85-10-12	5800	171	45000	10800	Ful	U	4	No	10.5	66.1					Own BK	U	4	No	7.06	45.3	AP-6wh	
(X) G. Mt. 9003 12-15	5455	185	50000	9775	Mun	U	12	A	10.3	144					Own BK	U	4	No	7.06	45.3	AP-6wh	
(X) Gen. Mot. T95-15-18	7675	189	60000	13540	Ful	U	4	No	8.6	53.3					Own BK	U	4	No	7.06	45.3	AP-6wh	
(X) Gen. Mot. T96-15-18	7325	189	60000	13140	Ful	U	4	No	9.11	57.1					Own BK	U	4	No	7.06	45.3	AP-6wh	
Gramm AX4. 2-3	131		3100	War T9	U	4	No	5.8	36.3	AX4				Own BK	U	4	No	7.06	45.3	AP-6wh		
Gramm AX6. 2-3	131		3300	War T9	U	4	No	5.8	36.3	AX6				Own BK	U	4	No	7.06	45.3	AP-6wh		
Gramm BX4. 3-4	131		3275	War T9	U	4	No	6.2	39.6	BX4				Own BK	U	4	No	7.06	45.3	AP-6wh		
Gramm BX6. 3-4	131		3475	War T9	U	4	No	6.2	39.6	BX6				Own BK	U	4	No	7.06	45.3	AP-6wh		
Gramm CX4. 4-6	131		3700	War T9	U	4	No	5.8	36.3	CX4				Own BK	U	4	No	7.06	45.3	AP-6wh		
Gramm CX6. 4-6	131		3900	War T9	U	4	No	5.8	36.3	CX6				Own BK	U	4	No	7.06	45.3	AP-6wh		
Gramm D. 3-5	118		4025	Cov A4J	U	4	Op	5.8	38.4	D				Own BK	U	4	No	7.06	45.3	AP-6wh		
Gramm C. 4-6	122		4700	Cov W4J	U	4	Op	5.8	37.1	C				Own BK	U	4	No	7.06	45.3	AP-6wh		
Gramm D. 5-8	122		5100	Cov W4J	U	4	Op	6.1	39.0	D				Own BK	U	4	No	7.06	45.3	AP-6wh		
Gramm E. 6-9	122		5800	Cov Rus	U	4	Op	5.57	37.8	E				Own BK	U	4	No	7.06	45.3	AP-6wh		
Gramm GW. 10-15	157		8925	Cov Rus	U	4	Op	6.3	42.8	GW		</										

WARD LaFRANCE has withdrawn all previous listings, except Model 75D tractor-truck and given new listings in the 2 1/2, 3, 3 1/2, 4, 5 and 5 1/2 and more, tonnage groups.

Other new listings appearing this month are:

Available: F 12 1 1/2-ton.

Relay: 40CA 1 1/2-ton, 40CB 2-ton, 40CC 2 1/2-ton.

Rugby: 616 1 1/2-ton.

Maccar: SW 86 six-wheeler.

Line Number	Make, Model and Capacity	General			Tire Size			Make and Model	Engine														Fuel System		Electrical System		Line Number
		Chassis Price	Standard W.B.	Max. W.R. Furnished	Gross Vehicle Wt. (See Key Note)	Chassis Wt. (Stripped)	Front		Rear	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings	Length Main Bearings	No. Main Bearings	Oiling System	Governor Make	Carburetor Make	Fuel Feed	Ignition System Make	Generator, Starter Make		
1000 Pounds																											
1	Chevrolet, Ind. Com.	355	109	109	4000	1880	B 4.75/19	B 4.75/19	Own	6-3 1/2 x 3 1/2	194.0	26.3	50-2600	H	G	C	2 1/2	6 1/2	3	PG	No	Car	P	D-R	D-R	1	
2	Dodge Bros. UF-10	435	109	109	4025	1925	B 5.00/19	B 5.00/19	Own	6-3 1/2 x 3 1/2	196	21.0	48-2800	L	G	A	2 1/2	6 1/2	3	FP	No	Car	M	D-R	D-R	2	
3	Dodge Bros. F-10	515	109	109	4125	1975	B 5.25/19	B 5.25/19	Own	6-3 1/2 x 3 1/2	211.5	25.3	66-3200	L	G	A	2 1/2	6 1/2	3	FP	No	Car	M	D-R	D-R	3	
4	Fargo Packet	595	109	109	4125	1925	B 5.00/19	B 5.00/19	Own	6-3 1/2 x 3 1/2	189.8	26.4	65-2700	L	G	A	2 1/2	6 1/2	3	FP	No	Car	M	D-R	D-R	4	
5	Ford, A	340	103	103	3800	1680	B 4.75/19	B 4.50/20	Own A	6-3 1/2 x 3 1/2	200.5	24.0	40-2200	L	G	A	2 1/2	7	3	PG	No	Mar	G	Own	N-E	5	
6	(X) Gen. Mot. T-11	625	109	141	3800	1980	B 5.00/19	B 5.50/19	Own 200	6-3 1/2 x 3 1/2	200.3	26.3	60-3000	L	G	A	2 1/2	5 1/2	3	PC	No	Mar	M	D-R	D-R	6	
7	(X) Gen. Mot. T-15	121	141	6500	4435	2425	B 5.50/20	B 5.50/20	Pontiac	6-3 1/2 x 3 1/2	200.3	26.3	60-3000	L	G	A	2 1/2	5 1/2	3	PC	No	Mar	M	D-R	D-R	7	
8	Paige	765	115	115	4435	2350	B 5.50/19	B 5.50/19	Own	6-3 1/2 x 3 1/2	207	23.4	66-3200	L	G	A	2 1/2	10 1/2	7	FP	No	Ste	P	D-R	D-R	8	
9	Reo, Jr. 15	785	115	115	4435	2350	B 6.00/18	B 6.00/18	Con 19E	6-3 1/2 x 3 1/2	214.7	27.3	60-2800	L	G	A	2 1/2	10 1/2	7	FP	No	Sch	P	D-R	D-R	9	
10	Studebaker	595	114	114	4000	2330	B 5.25/19	B 5.25/19	Own	6-3 1/2 x 3 1/2	221	21.3	70-3200	L	G	A	2 1/2	8 1/2	4	CC	No	Str	M	D-R	D-R	10	
11	Willis Six	395	113	113	4000	1923	B 5.00/19	B 5.00/19	Own C-113	6-3 1/2 x 3 1/2	193.0	25.3	65-3400	L	G	A	2 1/2	6 1/2	4	CC	No	Str	M	A-L	A-L	11	
1500 Pounds																											
12	Dodge Brothers	490	124	124	4760	2260	B 6.00/20	B 6.00/20	Own	4-3 1/2 x 4 1/2	196	21.0	45-2800	L	G	S	2 1/2	6 1/2	3	PC	No	Car	V	D-R	D-R	12	
13	Dodge Brothers	595	124	124	4860	2360	B 6.00/20	B 6.00/20	Own	6-3 1/2 x 3 1/2	208.0	27.3	63-3200	L	G	S	2 1/2	10 1/2	7	FP	No	Str	V	N-E	N-E	13	
14	Fargo Clipper	725	124	124	4860	2340	B 5.50/18	B 5.50/18	Own	6-3 1/2 x 3 1/2	195.6	23.4	48-2800	L	G	S	2 1/2	6 1/2	3	FP	No	Str	V	N-E	N-E	14	
15	Fisher-Std. JR-BX	645	130	141	6500	2600	P 30x5	P 30x5	Con W10	4-3 1/2 x 4 1/2	214.7	27.3	60-3000	L	G	C	2 1/2	5 1/2	3	PC	No	Zen	M	A-L	A-L	15	
16	(X) Gen. Mot. T-15	645	130	141	6500	2620	B 6.00/20	B 6.00/20	Own 200	4-3 1/2 x 4 1/2	214.7	27.3	60-3000	L	G	C	2 1/2	5 1/2	3	PC	No	Zen	M	A-L	A-L	16	
17	International, AW-1	650	136	136	6500	2620	B 5.25/20	B 5.25/20	Wau XA	6-3 1/2 x 4	173	19.6	30-2700	L	G	C	2 1/2	6 1/2	3	PC	No	Str	V	A-L	A-L	17	
18	Relay, 15AA	1370	131	131	6500	3750	P 30x5	P 30x5	Con 17E	6-3 1/2 x 4	214.7	27.3	52-2200	L	G	C	2 1/2	9 1/2	7	FP	No	Str	V	A-L	A-L	18	
1 Ton																											
19	Atterbury, A	132	145	7000	3400	P 30x5	P 30x5	Lyc WTG	6-3 1/2 x 4	201.4	21.6	64-2800	L	G	C	2 1/2	6 1/2	4	CC	No	Zen	G	D-R	D-R	19		
20	Brookway, 60	132	141	6000	3200	P 30x5	P 30x5	Con	6-3 1/2 x 4	214.7	27.3	61-3000	L	G	C	2 1/2	10 1/2	7	CC	No	Str	V	A-L	A-L	20		
21	Brookway, 65	132	141	6000	3200	P 30x5	P 30x5	Con	6-3 1/2 x 4	214.7	27.3	61-3000	L	G	C	2 1/2	10 1/2	7	CC	No	Str	V	A-L	A-L	21		
22	Commerce, S-11	1600	142	162	8000	3900	P 30x5	P 30x5	Bud HS6	6-3 1/2 x 4	241.6	27.3	53-2200	L	G	C	2 1/2	8 1/2	4	PC	No	Zen	V	A-L	A-L	22	
23	Condor, CAV6	885	131	180	8000	3550	B 6.00/20	B 6.50/20	Con 25A	6-3 1/2 x 4	214.7	27.3	61-3000	L	G	C	2 1/2	6 1/2	4	FP	No	Til	M	A-L	A-L	23	
24	Day Elder, 60	895	135	156	6000	3200	B 6.00/20	B 6.50/20	Con 25A	6-3 1/2 x 4	214.7	27.3	61-3000	L	G	C	2 1/2	6 1/2	4	FP	No	Zen	M	A-L	A-L	24	
25	Diamond T, 216	695	135	158	8000	3300	B 6.50/20	B 6.50/20	Her JXA	6-3 1/2 x 4	228.0	27.3	56-2400	L	G	C	2 1/2	10 1/2	7	PC	No	Zen	M	A-L	A-L	25	
26	Dodge Brothers	495	133	133	5840	2590	P 30x5	P 32x6	Own	4-3 1/2 x 4	196	21.0	45-2800	L	G	S	2 1/2	6 1/2	3	PC	No	Ha	Zen	V	D-R	D-R	26
27	Dodge Brothers	595	133	133	5940	2690	P 30x5	P 32x6	Own	6-3 1/2 x 3 1/2	208.0	27.3	63-3200	L	G	C	2 1/2	10 1/2	7	FP	No	Ha	Zen	V	N-E	N-E	27
28	Douglas, A6	595	135	145	7500	3075	P 30x5	P 30x5	Bud J214	6-3 1/2 x 4	214.7	27.3	61-3000	L	G	C	2 1/2	10 1/2	7	FP	No	Str	V	A-L	A-L	28	
29	Fargo Freight	795	137	149	6000	3400	P 30x5	P 32x6	Own	6-3 1/2 x 4	196	21.0	45-2800	L	G	S	2 1/2	6 1/2	3	PC	No	Str	V	A-L	A-L	29	
30	Fisher-Std. Sp. X-1-11	128	136	7800	3150	P 30x5	P 30x5	Con W-20	4-4 1/2 x 4 1/2	227	26.8	52-2400	L	G	C	2 1/2	5 1/2	3	FP	No	Zen	M	A-L	A-L	30		
31	Garford, S-11	1600	142	162	8000	3900	P 30x5	P 30x5	Bud HS6	6-3 1/2 x 4	241.6	27.3	53-2200	L	G	C	2 1/2	8 1/2	4	PC	No	Zen	V	A-L	A-L	31	
32	(X) Gen. Mt. T-15	675	130	141	6500	2670	B 7.00/20	B 7.00/20	Own 200	6-3 1/2 x 3 1/2	200.3	26.3	60-3000	L	G	C	2 1/2	5 1/2	3	PC	No	Mar	M	A-L	A-L	32	
33	Gramm, AX-1	795	131	180	8000	3350	B 6.00/20	B 6.50/20	Con W-10	4-3 1/2 x 4	200.4	24.0	50-2800	L	G	C	2 1/2	5 1/2	3	PC	No	Til	M	A-L	A-L	33	
34	Gramm, AX-6	895	131	180	8000	3550	B 6.00/20	B 6.50/20	Con 25A	4-3 1/2 x 4	214.7	27.3	74-3300	L	G	C	2 1/2	6 1/2	4	FP	No	Til	M	A-L	A-L	34	
35	Gramm, Bernstein, 10	124	146	7000	3100	P 30x5	P 30x5	Lyc 29L	6-3 1/2 x 4	220.9	27.3	43-2350	L	G	C	2 1/2	9 1/2	4	FP	No	Str	V	A-L	A-L	35		
36	Hahn & Selden, 7	132	141	6000	3200	P 30x5	P 30x5	Con	6-3 1/2 x 4	214.7	27.3	61-3000	L	G	C	2 1/2	6 1/2	4	CC	No	Str	V	A-L	A-L	36		
37	Indiana, 60	132	141	6000	3200	P 30x5	P 30x5	Con	6-3 1/2 x 4	214.7	27.3	61-3000	L	G	C	2 1/2	6 1/2	4	CC	No	Str	V	A-L	A-L	37		
38	Indiana, 64	137	149	6000	3400	P 30x5	P 30x5	Con	6-3 1/2 x 4	248.2	27.3	65-2700	L	G	C	2 1/2	10 1/2	7	CC	No	Str	V	A-L	A-L	38		
39	LaFrance-Republic A-1	795	132	6000	3000	B 5.50/20	P 32x6	Lyc WTG	6-3 1/2 x 4	201.5	21.6	60-2500	L	G	C	2 1/2	7	4	PC	No	Zen	V	A-L	A-L	39		
40	LaFrance-Republic AA-1	810	144	6000	3000	B 5.50/20	P 32x6	Lyc WTG	6-3 1/2 x 4	201.5	21.6	60-2500	L	G	C	2 1/2	7	4	PC	No	Zen	V	A-L	A-L	40		
41	Relay, 15AB	1400	131	131	6500	3800	P 30x5	P 30x5	Con 17E	6-3 1/2 x 4	214.7	27.3	52-2200	L	G	C	2 1/2	9 1/2	7	FP	No	Str	V	A-L	A-L	41	
42	Relay, S-11	1400	131	131	6500	3800	P 30x5	P 30x5	Bud HS6	6-3 1/2 x 4	214.7	27.3	52-2200	L	G	C	2 1/2	9 1/2	7	FP	No	Str	V	A-L	A-L	42	
43	Rugby, 614	112	112	4000	4050	P 30x5	P 30x5	Con 22-A	6-3 1/2 x 4	199.0	27.3	53-2200	L	G	C	2 1/2	8 1/2	4	PC	No	Str	V	A-L	A-L	43		
44	Service, S-11	1600	142	62	8000	3900	P 30x5	P 30x5	Bud HS3	6-3 1/2 x 4	214.7	27.3	53-2200	L	G	C	2 1/2	8 1/2	4	PC	No	Str	V	A-L	A-L	44	
45	Sterling, FB30	142	162	8000	2950	B 6.50/20	B 6.50/20	Con 25A	6-3 1/2 x 4	214.7	27.3	72-3300	L	G													

Line Number	Clutch	Gear Set		Universal Make and No.	Rear Axle		Front Axle		Brakes		Frame		Body Mounting Data		Springs		Line Number			
		Make and Model	Location		Make and Model	Final Drive and Type	Gear Ratios	Make and Model	Service	Area Service Brakes	Hand	Steering Gear Make	Dim. Side Rail	Type	Cap to Rear of Frame	Cap to Rear Axle	Width of Frame	Front	Rear	Auxiliary Type
1	Har	P.Own	U	3	Own	Own Int.	U 4.1 13.6	Own Ind.	O4IM	101 21	Own	5x2 1/4 x 1/4	C	53 1/2	28 1/2	42 1/2	36x1 1/4	54x1 1/4	N	1
2	Fed	P.Own	U	3	Own	Own	U 4.6 13.6	Own	L4IH	125 TX	War	5x1 1/4 x 1/4	C	53 1/2	26 1/2	42 1/2	35 1/2 x 1 1/4	53 1/2 x 1 1/4	N	2
3	Own	D.Own	U	3	Own	Own	U 4.7 14.3	Own	O4IM	168 21	War	5x1 1/4 x 1/4	C	53 1/2	26 1/2	42 1/2	30 1/2 x 1 1/4	39 1/2 x 1 1/4	N	3
4	Own	P.Own	U	3	Own	Pontiac	U 4.7 14.3	Pontiac	S4IM	200 41	Jac	5x1 1/4 x 1/4	C	53 1/2	26 1/2	42 1/2	36x2	54x2	N	4
5	Lon	P.Own	U	3	Own	Tim 51500	U 4.7 14.3	Tim 11709	B4IM	308 41	Jac	5x1 1/4 x 1/4	C	53 1/2	26 1/2	42 1/2	36x2	50 1/2 x 2 1/2	N	5
6	Lon	P.Own	U	3	Own	Sal	U 4.7 14.2	Clark	4IH	154 TX	Ros	5 1/2 x 2 1/4 x 1/4	C	53 1/2	26 1/2	42 1/2	36x2	54x2	N	6
7	Har	P.B&B	U	3	Own	Sal	U 4.7 14.2	Sal	L4IH	141 TX	Ros	5 1/2 x 2 1/4 x 1/4	C	53 1/2	26 1/2	42 1/2	36x1 1/4	54x1 1/4	N	7
8	Har	P.B&B	U	3	Own	Sal	U 4.7 14.2	Sal	B4IM	148 41	Ros	5 1/2 x 2 1/4 x 1/4	C	53 1/2	26 1/2	42 1/2	36x1 1/4	54x1 1/4	N	8
9	Har	P.B&B	U	3	Own	Sal	U 4.7 14.2	Sal	B4IM	143 41	Own	5 1/2 x 2 1/4 x 1/4	C	53 1/2	26 1/2	42 1/2	36x1 1/4	54x1 1/4	N	9
10	McC	P.B&B	U	3	Own	Sal	U 4.7 14.2	Sal	B4IM	143 41	Own	5 1/2 x 2 1/4 x 1/4	C	53 1/2	26 1/2	42 1/2	36x1 1/4	54x1 1/4	N	10
11	Fed	P.B&B	U	3	Own	Sal	U 4.7 14.2	Sal	B4IM	143 41	Own	5 1/2 x 2 1/4 x 1/4	C	53 1/2	26 1/2	42 1/2	36x1 1/4	54x1 1/4	N	11
12	Fed	P.	U	3	Own	Own	U 5.63 212	Own	L4IH	189 TX	Han	6x2 1/4 x 1/4	C	66 1/2	31	37 1/2	39x2	48x2 1/2	N	12
13	Own	D.Own	U	3	Own	Own	U 5.11 19.2	Own	L4IH	189 TX	Han	6x2 1/4 x 1/4	C	66 1/2	31	37 1/2	39x2	48x2 1/2	N	13
14	Own	P.Own	U	3	Own	Sal F	U 5.37 34	Sal F	L4IH	362 TX	Ros	6 1/2 x 2 1/4 x 1/4	C	84	47 1/2	32	40x2	54x2 1/2	N	14
15	Lon	P.Own	U	3	Own	Own	U 4.86 16.1	Own	B4IM	308 41	Jac	6x2 1/4 x 1/4	C	87	48	34	38x2	50 1/2 x 2 1/2	N	15
16	Lon	P.Own	U	3	Own	Own	U 4.86 16.1	Own	B4IM	308 41	Jac	6x2 1/4 x 1/4	C	87	48	34	38x2	50 1/2 x 2 1/2	N	16
17	Mod	P.Own	U	3	Own	Own	U 4.86 16.1	Own	B4IM	212 21	Ros	4 1/2 x 1 1/4 x 1/4	C	93 1/2	53 1/2	32	40x2	52x2	N	17
18	Lon	P.B&B	U	4	Own	Own	U 6.00 38.4	Col 5540	L4IH	297 FX	Han	6x2 1/4 x 1/4	P	96	55	34	36x2 1/4	48x2 1/4	N	18
19	Fed	P.B&B	U	4	Spl 300	Tim 51000H	B 5.6 20 30.7	Tim 11710H	L4IH	424	Gem	5 1/2 x 3 1/4 x 1/4	C	96	53 1/2	34	38x2 1/4	50x2 1/4	N	19
20	G&O	P.B&B	U	4	Spl 2	Col	H 5.19 19.8	Col	B4IM	297 TX	Ros	5 1/2 x 2 1/4 x 1/4	C	90	52 1/2	34	37x2 1/4	52x2 1/4	N	20
21	G&O	P.B&B	U	4	Spl 2	Col	H 5.12 21.3	Col	C4IM	244 TX	Ros	5 1/2 x 2 1/4 x 1/4	C	95	55	34	37x2 1/4	52x2 1/4	N	21
22	Lon	P.B-L	U	4	Blo	Col 54028	SF 5.1 25.5	Col 5530	L4IH	297 FX	Han	6x2 1/4 x 1/4	C	103 1/2	63	34	36x2 1/4	45x2 1/4	N	22
23	Per	D.Own	U	4	Blo	Tim 53200BF	BF 5.66 36.3	Tim 3000	L4IH	380 FD	Ros	6x2 1/4 x 1/4	C	81 1/2	51 1/2	34	36x2 1/4	45x2 1/4	N	23
24	G&O	P.B&B	U	4	Spl 2	Tim	H 5.6 35.8	Tim	B4IM	241 41	Ros	5 1/2 x 3 1/4 x 1/4	C	106 1/2	58 1/2	34	40x2 1/4	54x2 1/4	N	24
25	G&O	P.B&B	U	4	Spl 2	Cla B375	H Opt Opt	Cla F208	L4IH	252 TX	Ros	6 1/2 x 2 1/4 x 1/4	C	93	51 1/2	34	42x2	50x2 1/2	N	25
26	Fed	P.Own	U	4	Spl 2	Own	H 5.6 36.1	Own	L4IH	206 TX	Han	6 1/2 x 2 1/4 x 1/4	C	85 1/2	50	37 1/2	38x2	48x2 1/2	N	26
27	Fed	P.Own	U	4	Spl 2	Own	H 5.6 36.1	Own	L4IH	206 TX	Han	6 1/2 x 2 1/4 x 1/4	C	85 1/2	50	37 1/2	38x2	48x2 1/2	N	27
28	Mod	P.B&B	U	4	Spl 2	Cla B370	H 5.6 36.3	Cla F208	L4IH	377 FX	Ros	5 1/2 x 3 1/4 x 1/4	C	96	58 1/2	34	39 1/2 x 2	49x2 1/2	N	28
29	Own	P.Own	U	4	Spl 2	U-P	H 5.67 37.2	Own	L4IH	297 FX	Ros	6 1/2 x 2 1/4 x 1/4	C	88	54 1/2	32	40x2	54x2 1/2	N	29
30	Lon	P.Own	U	4	Spl 3	Tim 52200H	SF 5.8 37.3	Tim 11703H	L4IH	297 TX	Ros	6 1/2 x 2 1/4 x 1/4	C	103 1/2	63	34	36x2 1/4	45x2 1/4	N	30
31	Lon	P.B-L	U	4	Spl 3	Col 54028	SF 5.1 25.5	Col 5530	L4IH	297 TX	Han	6x2 1/4 x 1/4	C	103 1/2	63	34	36x2 1/4	45x2 1/4	N	31
32	Lon	P.Own	U	4	Spl 3	Own	H 5.83 16.0	Own	B4IM	308 41	Jac	6x2 1/4 x 1/4	C	87	48	34	38x2	50 1/2 x 2 1/2	N	32
33	Per	D.Own	U	4	Blo	Tim 53200H	BF 5.66 36.3	Tim	L4IH	380 FD	Ros	6x2 1/4 x 1/4	C	81 1/2	51 1/2	34	36x2 1/4	45x2 1/4	N	33
34	Per	D.Own	U	4	Blo	Tim 53200H	BF 5.66 36.3	Tim	L4IH	380 FD	Ros	6x2 1/4 x 1/4	C	81 1/2	51 1/2	34	36x2 1/4	45x2 1/4	N	34
35	Own	P.Own	U	4	Blo	Tim 52200H	BF 4.86 20.8	Tim 11703H	L4IH	230 TX	Ros	5 1/2 x 2 1/4 x 1/4	C	97	57 1/2	30 1/2	38x2	50x2 1/2	N	35
36	G&O	P.B&B	U	4	Spl 2	Tim 52000 H	R 5.59 19.8	Col	B4IM	297 TX	Ros	5 1/2 x 2 1/4 x 1/4	C	86	34	34	41x2 1/4	50x2 1/4	N	36
37	G&O	P.B&B	U	4	Spl 2	Col	H 5.12 21.3	Col	C4IM	244 TX	Ros	5 1/2 x 2 1/4 x 1/4	C	96	56	34	37x2 1/4	52x2 1/4	N	37
38	Lon	P.B&B	U	4	Spl 2	Col	H 5.12 21.3	Col	C4IM	244 TX	Ros	5 1/2 x 2 1/4 x 1/4	C	96	56	34	37x2 1/4	52x2 1/4	N	38
39	G&O	P.B&B	U	4	Spl 3	Tim 51000 H	SF 5.86 36.1	Tim 11710-H	L4IH	378 TX	Han	5 1/2 x 2 1/4 x 1/4	C	96	54	31 1/2	38x2	52 1/2 x 2 1/2	N	39
40	G&O	P.B&B	U	4	Spl 3	Tim 51000H	SF 5.86 36.1	Tim 11710-H	L4IH	378 TX	Han	5 1/2 x 2 1/4 x 1/4	C	96	54	31 1/2	38x2	52 1/2 x 2 1/2	N	40
41	Lon	P.B&B	U	4	Spl 3	Own	H 5.86 36.1	Own	L4IH	378 TX	Han	5 1/2 x 2 1/4 x 1/4	C	96	54	31 1/2	38x2	52 1/2 x 2 1/2	N	41
42	Lon	P.B-L	U	4	Spl 3	Own 20B	R 5.14 25.5	Col 5530	L4IH	297 FX	Han	6x2 1/4 x 1/4	C	103 1/2	63	34	36x2 1/4	48x2 1/4	N	42
43	McC	P.B&B	U	4	Spl 3	Adams	H 4.7 15.6	Adams	S4IM	178 41	War	5 1/2 x 2 1/4 x 1/4	C	52 1/2	26	41 1/2	36x1 1/4	55x2	N	43
44	Lon	P.B-L	U	4	Spl 3	Col 54028	SF 5.1 25.5	Col 5530	L4IH	269 TX	Ros	6x2 1/4 x 1/4	C	103 1/2	63	34	36x2 1/4	48x2 1/4	N	44
45	Per	P.B&B	U	4	Spl 3	Tim	H 5.66 36.3	Tim	L4IH	297 TX	Ros	6x2 1/4 x 1/4	C	96	57	34	38x2 1/4	50x2 1/4	N	45
46	Fed	P.B&B	U	4	Spl 3	Sal	H 5.6 35.8	Sal	B4IM	297 TX	Ros	6x2 1/4 x 1/4	C	77 1/2	40	32	38x2 1/4	50x2 1/4	N	46
47	Fed	P.B&B	U	4	Spl 3	Sal	H 5.6 35.8	Sal	B4IM	297 TX	Ros	6x2 1/4 x 1/4	C	77 1/2	40	32	38x2 1/4	50x2 1/4	N	47
48	Own	P.Own	U	4	Spl 3	Own 15B	H 5.99 37.9	Own 15B	L4IH	226 TX	Ros	6 1/2 x 2 1/4 x 1/4	C	97	57	34	41 1/2 x 2 1/4	53 1/2 x 2 1/4	N	48
49	Own	P.Own	U	4	Spl 3	Own 4C2	H 4.7 15.6	Own 4D	L4IH	138 TX	Han	6 1/2 x 2 1/4 x 1/4	C	112	58 1/2	34 1/2	39x2 1/4	50x2 1/4	N	49
50	Per	P.Own	U	4	Spl 3	Tim 53200H	SF 6.38 40.8	Tim 30000H	L4IH	377 TX	Ros	6 1/2 x 2 1/4 x 1/4	C	126	70	34	38x2 1/4	54x2 1/4	N	50
51	G&O	P.B&B	U	4	Spl 2	Col	H 5.12 25.6	Col	C4IM	244 TX	Ros	5 1/2 x 3 1/4 x 1/4	C	95	55	34	37x2 1/4	52x2 1/4	N	51
52	Per	P.Own	U	4	Spl 2	Cla B501	R 6.28 29.5	Shu 5405	C2XM	189 21	Ros	5 1/2 x 3 1/4 x 1/4	C	Opt	Opt	34	35 1/2 x 2 1/4	51x2 1/4	N	52
53	Lon	P.Own	U	4	Spl 2	Own	H 4.83 16.0	Own	B4IM	308 41	Jac	6x2 1/4 x 1/4	C	87	48	34	38x2	50 1/2 x 2 1/2	N	53
54	McC	P.B-L	U	4	Spl 3	Cla	H 5.1 24.5	Shu	K2IM	376 21	Ros	5 1/2 x 3 1/4 x 1/4	C	52 1/2	44 1/2	34	40x2 1/4	52x2 1/4	N	54
55	McC	P.B-L	U	4	Spl 3	Cla	H 5.1 24.5	Shu	K2IM	376 21	Ros	5 1/2 x 3 1/4 x 1/4	C	52 1/2	44 1/2	34	40x2 1/4	52x2 1/4	N	55
56	Lon	P.B&B	U	4	Spl 2	Col	H 5.12 25.6	Col	C4IM	190 TX	Ros	5 1/2 x 2 1/4 x 1/4	C	96	56	34	37x2 1/4	52x2 1/4	N	56
57	Per	P.B-L	U	4	Spl 3	Cla B370	SF 5.4 34.6	Cla F208	L4IH	220 TX	Ros	5 1/2 x 3 1/4 x 1/4	C	96	56	34 1/2	40x2 1/4	52x3	N	57
58	G&O	P.B&B	U	4	Spl 3	Tim 52200H	SF R 5.83 35.8	Tim 11710H	L4IH	413 TX	Han	6x2 1/4 x 1/4	C	109	60	32	38x2	57 1/2 x 2 1/2	N	58
59	Lon	P.B-L	U	4	Spl 3	Tim 52000 H	SF R 5.83 29.2	Tim 11703 H	L4IH	413 TX	Han	5 1/2 x 1 1/4 x 1/4	C	101 1/2	56	34	38x2 1/4	48x2 1/4	N	59
60	Per	P.B&B	U	4	Spl 3	Tim 53200H	BF 5.66 36.3	Tim 30000H	L4IH	330 TX	Ros	6x3 1/4 x 1/4	C	108	71	34	38x2 1/4	54x2 1/4	N	60
61	Fed	P.B&B	U	4	Spl 3	Tim 52200H	BF 5.66 36.3	Tim 11710H	L4IH	437 TX	Ros	5 1/2 x 3 1/4 x 1/4	C	118	66 1/2	34	38x2 1/4	50x2 1/4	N	61
62	Per	P.B&B	U	4	Spl 3	Own SA	H 5.22 27.9	Tim 14703H	LO4ID	460 21M	Ros	6 1/2 x 3 1/4 x 1/4	C	115 1/2	63 1/2	34	40x2 1/4	54x3	N	62
63	G&O	P.B&B	U	4	Spl 3	Tim	SF 5.66 36.3	Col	CB4IM	297 TX	Ros	5 1/2 x 2 1/4 x 1/4								

Line Number	Make, Model and Capacity	General		Tire Size		Engine										Fuel System	Electrical System	Line Number									
		Chassis Price	Standard W.B.	Max. W.B. Furnished	Gross Vehicle Wt. (See Key Note)	Chassis Wt. (Stripped)	Front	Rear	Make and Model	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings		Length Main Bearings	No. Main Bearings	Oiling System	Governor Make	Carburetor Make	Fuel Feed	Ignition System Make	Generator, Starter Make	
1½ Ton—Cont'd																											
1	Indiana.....111	129	165	9000	3600	P 30x5	P 32x6	Her	4-4x5	251.3	25.6	46-2000	L	GC	C	2 1/2	9 1/2	3	CC	No	Str	G	A-L	A-L	1		
2	Indiana.....89	149	168	9000	4050	P 32x6	P 32x6	Con	6-3 1/2 x 4 1/2	248.2	27.3	65-2700	L	GC	C	2 1/2	10 1/2	3	CC	No	Str	V	A-L	A-L	2		
3	International.....A-2	675	136	160	2935	B 5.50/20	B 6.00/20	Wau XAH	4-3 1/2 x 4 1/2	186	21	39-2400	L	GC	C	2 1/2	10 1/2	3	CC	No	Str	V	A-L	A-L	3		
4	International.....B-2	725	136	160	2959	B 5.50/20	B 6.00/20	Wau XAH	4-3 1/2 x 4 1/2	186	21	39-2400	L	GC	C	2 1/2	10 1/2	3	CC	No	Str	V	A-L	A-L	4		
5	International.....AL-3	1450	138	164	4032	B 6.00/20	DB 6.00/20	Lye 4SLH	6-3 1/2 x 4 1/2	224	25.3	64-2700	L	GC	C	2 1/2	8 1/2	4	CC	No	Str	V	A-L	A-L	5		
6	Kenworth.....85	1550	140	152	3700	P 30x5	DP30x5	Con 18E	6-3 1/2 x 4 1/2	214.7	27.3	61-3000	L	GC	C	2 1/2	9 1/2	4	CC	No	Str	V	A-L	A-L	6		
7	Kleiber.....80	144	175	7500	3625	B 7.00/20	B 7.00/20	Con 18E	6-3 1/2 x 4 1/2	214.7	27.3	61-3000	L	GC	C	2 1/2	9 1/2	4	CC	No	Str	V	A-L	A-L	7		
8	LaFrance-Republic C-1	144	175	7500	3300	B 6.00/20	P 32x6	Lye 4SL	6-3 1/2 x 4 1/2	224.0	25.3	61-2750	L	GC	C	2 1/2	8 1/2	4	CC	No	Str	V	A-L	A-L	8		
9	Lange.....R	2225	140	172	4600	P 32x6	P 32x6	Her WXB	6-3 1/2 x 4 1/2	298.0	33.7	67-2400	L	GC	C	2 1/2	13 1/2	4	CC	No	Str	V	A-L	A-L	9		
10	Larrabee.....25	1945	152	160	4200	B 7.00/20	B 7.00/20	Con 16C	6-3 1/2 x 4 1/2	248.2	27.3	65-2700	L	GC	C	2 1/2	10 1/2	4	CC	No	Str	V	A-L	A-L	10		
11	LeMoore.....HB10	1500	140	152	3300	B 6.50/20	B 6.50/20	Con 16C	6-3 1/2 x 4 1/2	248.2	27.3	65-2800	L	GC	C	2 1/2	10 1/2	4	CC	No	Str	V	A-L	A-L	11		
12	Maccar.....36200	1950	154	171	4800	P 32x6	DP32x6	Bud HS	6-3 1/2 x 4 1/2	241.6	27.3	57-2400	L	GC	C	2 1/2	7 1/2	4	CC	No	Str	V	A-L	A-L	12		
13	Mack.....36A	1900	155	171	4800	P 32x6	DP32x6	Bud H-298	6-3 1/2 x 4 1/2	298.0	33.7	63-2800	L	GC	C	2 1/2	7 1/2	4	CC	No	Str	V	A-L	A-L	13		
14	Mack.....BL	2600	160	Op	2950	B 6.50/20	DP32x6	Wau BL	6-3 1/2 x 4 1/2	214.7	27.3	61-3000	L	GC	C	2 1/2	10 1/2	4	CC	No	Str	V	A-L	A-L	14		
15	Netco.....A	2800	146	168	4000	B 6.00/20	B 6.00/20	Wau 6TL	6-3 1/2 x 4 1/2	255.0	27.3	68-2600	L	GC	C	2 1/2	7 1/2	4	CC	No	Str	V	A-L	A-L	15		
16	Relay.....40	2990	168	7000	5300	P 34x5	DP34x5	Bud DS 6	6-3 1/2 x 5	309.6	31.5	56-2100	L	GC	C	2 1/2	7 1/2	4	CC	No	Str	V	A-L	A-L	16		
17	Relay.....40CA	3040	168	7000	5550	P 34x5	DP34x5	Bud DW6	6-3 1/2 x 5	331	33.7	64-2100	L	GC	C	2 1/2	8 1/2	4	CC	No	Str	V	A-L	A-L	17		
18	Relay.....S 11	1900	162	7000	4500	P 30x5	DP30x5	Bud HS 6	6-3 1/2 x 4 1/2	241.6	27.3	53-2200	L	GC	C	2 1/2	8 1/2	4	CC	No	Str	V	A-L	A-L	18		
19	Reo.....1A, IC	625	136	160	3200	B 6.00/20	P 32x6	Own	4-3 1/2 x 4 1/2	205.0	23.3	51-2500	L	GC	C	2 1/2	8 1/2	4	CC	No	Str	V	A-L	A-L	19		
20	Reo.....1B, ID	725	136	160	3200	B 6.00/20	P 32x6	Own	4-3 1/2 x 4 1/2	214.7	27.3	51-3000	L	GC	C	2 1/2	10 1/2	4	CC	No	Str	V	A-L	A-L	20		
21	Reo.....DFX Tonner	1095	129	135	3200	B 6.00/20	DP32x6	Own	6-3 1/2 x 5	268.3	27.3	85-3200	L	GC	C	2 1/2	12 1/2	7	CC	No	Sch	V	A-L	A-L	21		
22	Rugby.....6-15	865	135	7150	2850	B 5.50/20	P32x6	Con 22A	6-3 1/2 x 4	199.0	25.3	71-3300	L	GC	C	2 1/2	6 1/2	4	CC	No	Str	V	A-L	A-L	22		
23	Rugby.....6-16	920	154	7150	3110	B 5.50/20	B 5.50/20	Con 22A	6-3 1/2 x 4	199.0	25.3	71-3300	L	GC	C	2 1/2	6 1/2	4	CC	No	Str	V	A-L	A-L	23		
24	Schacht.....10	156	170	7900	4400	B 6.50/20	DB 6.50/20	Con 16C	6-3 1/2 x 4 1/2	248.2	27.3	65-2600	L	GC	C	2 1/2	10 1/2	4	CC	No	Str	V	A-L	A-L	24		
25	Selden.....317	142	142	7900	3900	P 32x6	P 32x6	Con 16C	6-3 1/2 x 4 1/2	248.2	27.3	65-2600	L	GC	C	2 1/2	10 1/2	4	CC	No	Str	V	A-L	A-L	25		
26	Service.....40	2990	168	7000	4700	P 34x5	DP34x5	Bud DS 6	6-3 1/2 x 5	309.6	31.5	56-2100	L	GC	C	2 1/2	7 1/2	4	CC	No	Str	V	A-L	A-L	26		
27	Service.....BL	1900	162	7000	4300	P 30x5	DP30x5	Bud HS6	6-3 1/2 x 4 1/2	241.6	27.3	53-2200	L	GC	C	2 1/2	8 1/2	4	CC	No	Str	V	A-L	A-L	27		
28	Sterling.....FB30	142	162	7000	3050	B 6.50/20	B 6.50/20	Con 25A	6-3 1/2 x 4	214.7	27.3	72-3300	L	GC	C	2 1/2	8 1/2	4	CC	No	Str	V	A-L	A-L	28		
29	Sterling.....FB35-1 1/2, 1 1/2	142	162	7000	3050	B 6.50/20	B 6.50/20	Con 25A	6-3 1/2 x 4	214.7	27.3	72-3300	L	GC	C	2 1/2	8 1/2	4	CC	No	Str	V	A-L	A-L	29		
30	Stewart.....40	895	130	160	3215	B 6.50/20	DB 6.50/20	Lye AFE	4-3 1/2 x 4 1/2	199.0	22.5	50-2600	L	GC	C	2 1/2	7 1/2	4	CC	No	Str	V	A-L	A-L	30		
31	Stewart.....40X	995	130	160	3350	B 6.50/20	DB 6.50/20	Lye	6-3 1/2 x 4 1/2	201.5	21.6	60-2800	L	GC	C	2 1/2	7 1/2	4	CC	No	Str	V	A-L	A-L	31		
32	Stewart.....34X	1195	145	176	3710	B 6.50/20	DB 6.50/20	Lye 4SL	6-3 1/2 x 4 1/2	224.0	25.3	61-2600	L	GC	C	2 1/2	9 1/2	4	CC	No	Str	V	A-L	A-L	32		
33	Studebaker.....S-20	695	130	160	2985	B 6.00/20	P 32x6	Own	6-3 1/2 x 4 1/2	205	25.4	70-3200	L	GC	C	2 1/2	8 1/2	4	CC	No	Str	V	A-L	A-L	33		
34	White.....61	2450	148	196	4789	P 30x5	DP30x5	Own 4A	6-3 1/2 x 4 1/2	299.0	33.7	61-2100	L	GC	C	2 1/2	9 1/2	4	CC	No	Str	V	A-L	A-L	34		
35	Wichita.....6-21	2600	160	Op	4695	P 32x6	DP32x6	Own W	6-3 1/2 x 4 1/2	315	33.7	65-2600	L	GC	C	2 1/2	8 1/2	4	CC	No	Str	V	A-L	A-L	35		
36	Willis Six.....C-131	595	131	131	2025	B 5.50/20	P 32x6	Own C-131	6-3 1/2 x 3	193.0	25.3	65-3400	L	GC	C	2 1/2	6 1/2	4	CC	No	Til	M	A-L	A-L	36		
37	Willis Six.....C157	630	157	157	2900	B 5.50/20	P 32x6	Own C-157	6-3 1/2 x 3	193.0	25.3	65-3400	L	GC	C	2 1/2	6 1/2	4	CC	No	Til	M	A-L	A-L	37		
38	Witt-Will.....S15B	2100	147	10500	4500	P 30x5	DP30x5	Con 84	4-4 1/2 x 4 1/2	255.3	28.9	50-2200	L	GC	C	2 1/2	8 1/2	4	CC	No	Str	V	A-L	A-L	38		
39	Witt-Will.....C15B	2200	158	10500	5170	P 30x5	DP30x5	Con 16C	6-3 1/2 x 4 1/2	248.2	27.3	66-3200	L	GC	C	2 1/2	10 1/2	4	CC	No	Str	V	A-L	A-L	39		
40	Woods.....32	1995	160	Op	4400	B 6.50/20	DB 6.50/20	Her WXA-2	6-3 1/2 x 4 1/2	260	29.4	60-2400	L	GC	C	2 1/2	13 1/2	7	CC	No	Str	V	A-L	A-L	40		
41	World.....DB-60	1545	150	166	3900	B 6.50/20	DB 6.50/20	Lye 4SL	6-3 1/2 x 4 1/2	224	25.3	61-2750	L	GC	C	2 1/2	7 1/2	4	CC	No	Str	V	A-L	A-L	41		
1¾ Ton																											
43	Condor.....CB	1460	140	174	4150	B 6.50/20	DB 6.50/20	Lye 4SL	6-3 1/2 x 4 1/2	224.0	25.3	61-2900	L	GC	C	2 1/2	8 1/2	4	CC	No	Str	V	A-L	A-L	43		
44	Federal.....F7	1525	132	152	3765	P 30x5	DP30x5	Con 16C	6-3 1/2 x 4 1/2	248.0	27.3	64-2500	L	GC	C	2 1/2	10 1/2	4	CC	No	Str	V	A-L	A-L	44		
45	Gramm.....B	140	196	12000	4150	B 6.50/20	DB 6.50/20	Lye 4SL	6-3 1/2 x 4 1/2	224.0	25.3	61-2900	L	GC	C	2 1/2	8 1/2	4	CC	No	Str	V	A-L	A-L	45		
2 Ton																											
46	Acme.....4X	179	Op	12500	5500	B 7.50/20	DB 7.50/20	Con 16R	6-4x4 1/2	311	38.4	73-															

Line Number	Radiator Make	Clutch	Gearset	Location	No. of Forward Speeds	Aux. Locat. and Speeds	Universal Make and No.	Rear Axle		Front Axle		Brakes		Frame		Body Mounting Data		Springs		Auxiliary Type	Line Number				
								Make and Model	Final Drive and Type	Drive and Torque	Gear Ratios	Make and Model	Service	Area Service Brakes	Hand	Steering Gear Make	Dim. Side Rail	Type	Cab to Rear of Frame			Cab to Rear Axle	Width of Frame	Front	Rear
1	McC	P.B&B	B-L	U	3	No	Spl 3	Clia	SF	H 5.5	26.4	Shu	K2IM	432	2I	Ros	5 1/2 x 3 1/2 x 1/2	C	99	54	34	40x2 1/2	54x2 1/2	N	1
2	Lon	P.B&B	B-L	U	4	No	Spl 3	Clia	SF	H 5.5	26.4	Shu	K2IM	432	2I	Ros	5 1/2 x 3 1/2 x 1/2	C	114	54	34	40x2 1/2	54x2 1/2	N	2
3	Mod	P.M.M.	W-G T7	U	4	No	M.M. 4	Own 702	SF	H 5.5	26.4	Shu	BE4IM	212	TX	Ros	5 1/2 x 3 1/2 x 1/2	C	93	53	32	40x2 1/2	46x2 1/2	N	3
4	Mod	P.M.M.	W-G T7	U	4	No	M.M. 5	Own 800	SF	H 5.5	26.4	Shu	BE4IM	212	TX	Ros	5 1/2 x 3 1/2 x 1/2	C	93	53	32	40x2 1/2	46x2 1/2	N	4
5	Per	P.B-L	B-L 214	U	4	No	Spl 3	Clia B370	SF	H 5.5	26.4	Shu	BE4IM	212	TX	Ros	5 1/2 x 3 1/2 x 1/2	C	98	55	32	40x2 1/2	52x2 1/2	N	5
6	Mod	P.B-L	B-L 214	U	4	No	Spl 4	Tim 53200H	BF	H 5.8	34.0	Tim 30000H	L4IH	220	TX	Ros	5 1/2 x 3 1/2 x 1/2	C	96	58	34	40x2 1/2	52x2 1/2	N	6
7	Mod	P.B&B	WO-BB	U	4	No	Spl 3	Tim 52200H	SF	R 5.83	35.8	Tim 1170H	L4IH	413	TX	Ros	6 1/2 x 1 1/2 x 1/2	C	109	60	32	38x2 1/2	57 1/2 x 2 1/2	N	7
8	G&O	D.B-L	B-L 31	U	3	No	Spl 4	Tim 54000H	BF	R 5.83	28.0	Tim 12703H	L4IH	279	CD	Ros	5 1/2 x 1 1/2 x 1/2	P	84	56	33	38x2 1/2	50x2 1/2	N	8
9	Mod	D.B-L	B-L 214	U	4	No	Spl 2	Tim 52300H	BF	H 5.83	37.4	Tim 12703H	L4IH	452	TD	Ros	6 3/4 x 1 1/2 x 1/2	C	96	58	34	38x2 1/2	54x2 1/2	N	9
10	Chl	D.B-L	B-L 214	U	4	No	Spl 2	Tim 52200H	BF	R 5.83	31.7	Tim 11703H	L4IH	136	TX	Ros	6 3/4 x 1 1/2 x 1/2	C	96	58	34	37 1/2 x 2 1/2	49 1/2 x 2 1/2	N	10
11	Per	D.B-L	B-L 214	U	4	No	Cle 3	Tim 54200H	BF	R 5.83	29.1	Tim 14703H	L4IH	315	TX	Ros	6 1/2 x 3 1/2 x 1/2	C	117 1/2	74 1/2	32	42 1/2 x 2 1/2	54x2 1/2	N	11
12	Per	D.B-L	B-L 214	U	4	No	Cle 3	Tim 54200H	BF	R 5.83	29.1	Tim 14703H	L4IH	315	TX	Ros	6 1/2 x 3 1/2 x 1/2	C	117 1/2	74 1/2	32	42 1/2 x 2 1/2	54x2 1/2	N	12
13	Own	D.Own	Own BG	U	4	No	Spl 3	Tim 53000	SF	H 4.86	24.0	Own Bl	L4IH	302	FX	Gem	7 1/2 x 3 1/2 x 1/2	C	109	64	33	40x2 1/2	52 1/2 x 2 1/2	N	13
14	Mod	D.B-L	B-L 214	U	4	No	Pet 2	Tim 52000H	SF	H 4.85	Opt	Tim 11703H	L4IH	229	ID	Ros	6 1/2 x 1 1/2 x 1/2	P	108	72	34	40x2 1/2	50x3	N	14
15	Lon	D.B-L	B-L 315	U	4	No	Blo	Own 30	2R	H 4.45	34.5	Tim 14704 H	L4IH	394	FX	Han	6 3/4 x 1 1/2 x 1/2	P	144	90	34	40x2 1/2	50x3	N	15
16	Lon	D.Ful	FuMG U14	U	4	No	Blo	Own 30	2R	H 4.45	34.5	Tim 14704 H	L4IH	394	FX	Han	6 3/4 x 1 1/2 x 1/2	P	144	90	34	40x2 1/2	50x3	N	16
17	Lon	P.B-L	B-L 20	U	4	No	Blo	Own 20	2R	H 6.00	40.0	Col 5530	L4IH	297	FX	Han	6 3/4 x 1 1/2 x 1/2	P	133 1/2	83	34	36x2 1/2	48x2 1/2	N	17
18	.....	P.Lon	Clia	U	4	.....	Cle	Clia B-373	SF	H 5.6	36.9	Own	L4IH	230	X	Ros	7 1/2 x 1 1/2 x 1/2	P	126 1/2	60	34	40x2 1/2	50x2 1/2	N	18
19	.....	P.Lon	Clia	U	4	.....	Cle	Clia B-373	SF	H 5.6	36.9	Own	L4IH	230	X	Ros	7 1/2 x 1 1/2 x 1/2	P	126 1/2	60	34	40x2 1/2	50x2 1/2	N	19
20	.....	P.Lon	Clia	U	4	.....	Cle	Clia B-373	SF	H 5.6	36.9	Own	L4IH	230	X	Ros	7 1/2 x 1 1/2 x 1/2	P	126 1/2	60	34	40x2 1/2	50x2 1/2	N	20
21	Own	P.Rus	Clark	U	4	No	Cle	Own	SF	H 5.2	34.1	Own	L4IH	280	TX	Ros	6 1/2 x 3 1/2 x 1/2	C	97 1/2	52	40	38x2 1/2	50x2 1/2	N	21
22	Own	dp.Lon	Own	U	3	No	Cle	Own	SF	H 5.2	17.1	Own	L4IH	280	TX	Ros	6 1/2 x 3 1/2 x 1/2	C	97 1/2	52	40	38x2 1/2	50x2 1/2	N	22
23	McC	P.B&B	B-L	U	4	No	Spl	Sal	SF	H 5.38	34.5	Sal	S4IM	275	TX	War	6 1/2 x 2 1/2 x 1/2	C	109 1/2	72 1/2	34	36 1/2 x 2	50x2 1/2	N	23
24	McC	P.B&B	B-L	U	4	No	Spl	Sal	SF	H 5.62	31.2	Sal	S4IM	275	TX	War	6 1/2 x 2 1/2 x 1/2	C	109 1/2	72 1/2	34	36 1/2 x 2	50x2 1/2	N	24
25	You	P.B&B	Ful WO	U	4	No	Spl	Tim 53200A	BF	H 5.83	31.2	Tim 11703H	L4IH	452	TX	Ros	6 3/4 x 1 1/2 x 1/2	P	Opt	31 1/2	Opt	40x2 1/2	50x3	N	25
26	Own	D.B-L	B-L 35	U	4	No	Blo	Tim	WF	H 5.1	.....	Tim	L4IH	.....	TX	Ros	6 3/4 x 1 1/2 x 1/2	P	110	66	34	41x2 1/2	50x2 1/2	N	26
27	Own	D.B-L	B-L 35	U	4	No	Blo	Tim 63702	WF	H 5.1	.....	Tim 14704 H	L4IH	394	FX	Han	6 3/4 x 1 1/2 x 1/2	P	144	90	34	40x2 1/2	50x3	N	27
28	Own	D.B-L	B-L 35	U	4	No	Blo	Tim 54000	WF	H 5.83	37.6	Col 5530	L4IH	287	TX	Ros	6 1/2 x 2 1/2 x 1/2	P	133 1/2	83	34	36x2 1/2	48x2 1/2	N	28
29	Per	P.B&B	Cov FAB	U	4	No	Spl	Tim	BF	H 5.66	37.6	Tim	L4IH	269	TX	Ross	6 1/2 x 2 1/2 x 1/2	C	96	57	34	38x2 1/2	50x2 1/2	N	29
30	Per	P.B&B	War T9	U	4	No	Spl	Clia	BF	H 5.66	36.2	Clia	L4IH	228	TX	Ross	6 1/2 x 2 1/2 x 1/2	C	96	57	34	38x2 1/2	50x2 1/2	N	30
31	Fed	P.B&B	War	U	4	No	Spl	Clia	BF	H 5.6	35.8	Clia	B4IM	.....	TX	Ros	7 1/2 x 2 1/2 x 1/2	C	77 1/2	48	32	38 1/2 x 2 1/2	50x2 1/2	N	31
32	Fed	P.B&B	War	U	4	No	Spl	Clia	SF	H 5.6	35.8	Clia	B4IM	.....	TX	Ros	7 1/2 x 2 1/2 x 1/2	C	77 1/2	48	32	38 1/2 x 2 1/2	50x2 1/2	N	32
33	Own	P.B&B	War	U	4	No	Spl 3	Clia	SF	H 5.6	22.0	Clia	B4IM	.....	TX	Ros	7 1/2 x 2 1/2 x 1/2	C	194 1/2	48 1/2	32	38x2 1/2	50x2 1/2	N	33
34	McC	P.B&B	WGAST-T9	U	4	No	Spl	Clark B-737	SF	H 5.66	35.8	Clark 208B	B4IM	224	FX	Ros	6 1/2 x 2 1/2 x 1/2	C	85 1/2	50 1/2	34	36x1 1/2	45x2 1/2	N	34
35	Own	D.Ful	Own 5B	U	4	No	Spl 3	Own 70B	SF	H 5.67	33.4	Own 7D	L4IH	320	CD	Ros	6 1/2 x 3 1/2 x 1/2	C	117 1/2	74 1/2	32	42 1/2 x 2 1/2	54x2 1/2	N	35
36	You	D.Ful	Ful MLU	U	4	No	Spl	Own 30R	SF	H 5.67	34.8	She 3FA10	O2IM	320	RI	Ros	6 1/2 x 3 1/2 x 1/2	C	130 1/2	78 1/2	30	40x2 1/2	50x3	N	36
37	Fed	P.B&B	War	U	4	No	Spl	Clia	SF	H 5.67	34.8	Own	B4IM	235	AI	Own	6 1/2 x 2 1/2 x 1/2	C	86 1/2	51 1/2	37	36x1 1/2	45x2 1/2	N	37
38	Fed	P.B&B	War	U	4	No	Spl	Clia	SF	H 5.67	34.8	Own	B4IM	235	AI	Own	6 1/2 x 2 1/2 x 1/2	C	121 1/2	77 1/2	32	36x1 1/2	45x2 1/2	N	38
39	Per	D.B-L	B-L 20	U	4	No	Spl	Tim 53200H	BF	H 5.66	36.3	Tim 30000H	L4IH	.....	TX	Ros	6 1/2 x 1 1/2 x 1/2	C	.....	79 1/2	32	41x2 1/2	54x3	N	39
40	Per	D.B-L	B-L 20	U	4	No	Spl	Tim 53200H	BF	H 5.66	31.2	Tim 30000H	L4IH	.....	TX	Ros	6 1/2 x 1 1/2 x 1/2	C	.....	79 1/2	32	41x2 1/2	54x3	N	40
41	Chl	D.B-L	B-L	U	4	No	Blo 2	Tim	H Opt	Opt	Opt	Tim	L4IH	380	TX	Ros	6 1/2 x 1 1/2 x 1/2	C	Opt	70	34	40x2 1/2	49x2 1/2	N	41
42	Per	dp.Lon	WG T9	U	4	No	Spl 3	Tim53200H	SF	H 5.68	40.8	Tim30000H	L4IH	377	TX	Ros	6 1/2 x 2 1/2 x 1/2	T	126	70	34	38x2 1/2	54x2 1/2	N	42
43	Per	D.Own	Cov A4J	U	4	No	Blo	Tim 54200H	BF	H 5.83	37.1	Col 4003	L4IH	278	FD	Ros	6 1/2 x 2 1/2 x 1/2	C	94	60 1/2	34	40x2 1/2	50x2 1/2	N	43
44	Lon	P.B&B	Cov A4J	U	4	No	Blo	Tim 52005H	BF	H 5.83	29.2	Tim 11704 H	L4IH	437	TI	Gem	6 1/2 x 2 1/2 x 1/2	C	95	51	34	38x2 1/2	50x2 1/2	N	44
45	Per	D.Own	Cov A4J	U	4	No	Blo																		

Line Number	Make, Model and Capacity	General			Tire Size		Engine										Fuel System		Electrical System		Line Number						
		Chassis Price	Standard W.B.	Max. W.B. Furnished	Gross Vehicle Wt. (See Key Note)	Chassis Wt. (Stripped)	Front	Rear	Make and Model	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings	Length Main Bearings	No. Main Bearings	Oiling System		Governor Make	Carburetor Make	Fuel Feed	Ignition System Make	Generator, Starter Make	
2 Ton—Cont'd																											
1	Omort.....200	124	148	11500	4800	P 32x6	DP32x6	Her OX	4-4x5	251.3	25.6	46-2000	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	29	
2	Pierce-Arrow.....PT	160	200	12000	5600	B 7.50/20	DB7.50/20	Lyc ASD	6-3 1/2 x 5 1/2	298.2	33.7	85-2800	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	30	
3	Relay.....40CB	3240	168	185	5500	P 36x6	DP36x6	Bud DS6	6-3 1/2 x 5 1/2	309.6	31.5	56-2100	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	31	
4	Relay.....S11	3290	162	185	4700	P 32x6	DP32x6	Bud HS6	6-3 1/2 x 5 1/2	241.6	27.3	53-2200	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	32	
5	Relay.....50	3860	161	13600	6800	P 36x6	DP36x6	Bud DW6	6-3 1/2 x 5 1/2	331.0	33.7	64-2100	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	33	
6	Relay.....FAX	1295	137	156	3525	B 6.50/20	DB6.50/20	Own	6-3 1/2 x 5 1/2	268.3	27.3	67-2800	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	34	
7	Relay.....FE	1395	152	156	3700	B 6.50/20	DB6.50/20	Own	6-3 1/2 x 5 1/2	268.3	27.3	67-2800	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	35	
8	Relay.....FX	1395	156	156	3750	B 6.50/20	DB6.50/20	Own	6-3 1/2 x 5 1/2	268.3	27.3	67-2800	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	36	
9	Schacht De Luxe.....20	160	174	11000	5300	B 7.50/20	DB 7.50/20	Con 16C	6-3 1/2 x 5 1/2	248.3	27.3	65-2600	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	37	
10	Service.....S11	3230	162	185	4900	P 36x6	DP36x6	Bud DS6	6-3 1/2 x 5 1/2	309.6	31.5	56-2100	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	38	
11	Service.....S11	3230	162	185	4500	P 32x6	DP32x6	Bud HS6	6-3 1/2 x 5 1/2	241.6	27.3	53-2200	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	39	
12	Sterling.....FB45	159	182	11000	4080	B 6.50/20	DB6.50/20	Con 16C	6-3 1/2 x 5 1/2	248.3	27.3	66-3000	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	40	
13	Sterling.....FB55-2, 2 1/2 T	159	182	11000	4580	B 7.00/20	DB7.00/20	Con 16C	6-3 1/2 x 5 1/2	248.3	27.3	66-3000	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	41	
14	Stewart.....28X	1495	136	176	4058	B 6.50/20	DB6.50/20	Lyc 4SL	6-3 1/2 x 5 1/2	224.0	25.3	61-2600	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	42	
15	Stewart.....29X8	1695	145	176	4960	P 32x6	DP32x6	Lyc ASA	6-3 1/2 x 5 1/2	278	31.5	85-3100	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	43	
16	Studebaker.....S-50	1885	160	1900	3810	B 6.50/20	DB6.50/20	Own	6-3 1/2 x 5 1/2	205	25.4	70-3200	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	44	
17	White.....611	2550	148	196	5275	B 7.50/20	DB7.50/20	Own GRC	6-4x5 1/2	299.0	25.6	45-1800	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	45	
18	White.....160-161 1 to 2T	138	157	10000	4260	P 30x5	P 30x5	Own 4A	6-3 1/2 x 5 1/2	289	25.6	45-1800	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	46	
19	White.....162 1 to 2T	138	157	10000	4260	P 30x5	DP30x5	Own GRCB	4-4x5 1/2	289	25.6	45-1800	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	47	
20	Witt-Will.....C2B	2450	158	12500	5400	B 6.50/20	DB6.50/20	Con 16C	6-3 1/2 x 5 1/2	248	27.3	66-3200	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	48	
21	Witt-Will.....C2W	2550	158	12500	5400	B 6.50/20	DB6.50/20	Con 16C	6-3 1/2 x 5 1/2	248	27.3	66-3200	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	49	
22	Witt-Will.....R2B	158	158	12500	5820	B 6.50/20	DB6.50/20	Con 16R	6-3 1/2 x 5 1/2	311	38.4	72-2400	H	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	50	
23	Witt-Will.....R2	158	158	12500	5800	B 6.50/20	DB6.50/20	Con 16R	6-4x4 1/2	311	38.4	72-2400	H	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	51	
24	Woods.....41	2550	170	Op	5275	B 7.50/20	DB7.50/20	Her WXB	6-3 1/2 x 5 1/2	298	33.7	68-2400	H	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	52	
25	World.....DC-60	1845	150	164	4450	B 7.00/20	DB7.00/20	Lyc 4SL	6-3 1/2 x 5 1/2	224	25.3	61-2750	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	53	
26	World.....DA-88	2300	151	167	4200	B 7.50/20	DB7.50/20	Lyc GU	8-3x4 1/2	268	28.8	96-3400	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	54	
2 1/2 Ton																											
29	Amer. LaF...Chief 9R	3900	180	Op	6200	P 34x7	DP34x7	Own	6-3 1/2 x 5 1/2	331.0	33.7	65-2100	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	29	
30	Atterbury.....50	189	202	14000	5800	B 8.25/20	DB8.25/20	Lyc ASD	6-3 1/2 x 5 1/2	298.2	33.7	85-2800	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	30	
31	Autocar.....T-23	Op	Op	14000	5710	P 34x7	DP34x7	Own	6-4x4 1/2	358.0	38.4	82-2400	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	31	
32	Available.....T-23	Op	Op	14000	5600	P 32x6	DP32x6	Wau MS	6-3 1/2 x 5 1/2	298	33.8	67-2300	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	32	
33	Available.....T-27	Op	Op	14000	5900	P 32x6	DP32x6	Wau MS	6-3 1/2 x 5 1/2	298	33.8	67-2300	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	33	
34	Brookway.....140	156	188	14000	6100	P 34x7	DP34x7	Con	6-4x4 1/2	311.0	38.4	73-2400	H	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	34	
35	Brookway.....2 1/2-3T-141	170	208	17000	6200	P 32x6	DP32x6	Con	6-4x4 1/2	311.0	38.4	73-2400	H	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	35	
36	Chicago.....1-24-A	160	208	13273	5773	B 8.25/20	DB8.25/20	Wau GML	6-3 1/2 x 5 1/2	358.0	38.4	77-2400	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	36	
37	Coleman.....C30	120	144	14000	7700	P 38x7	P 38x7	Bud DW6	6-3 1/2 x 5 1/2	331.0	33.7	73-2400	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	37	
38	Commerce.....60	4580	175	192	7000	P 36x6	DP36x6	Bud BA-6	6-4 1/2 x 5 1/2	410.9	40.8	83-2100	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	38	
39	Commerce.....40	3240	168	185	5100	P 36x6	DP36x6	Bud DS6	6-3 1/2 x 5 1/2	309.6	31.5	56-2100	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	39	
40	Condon.....CD	1950	160	196	5200	B 7.50/20	DB7.50/20	Lyc ASD	6-3 1/2 x 5 1/2	299.0	33.7	85-2800	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	40	
41	Day Elder.....130	2895	150	204	6400	B 7.50/20	DB7.50/20	Con 16R	6-4x4 1/2	311.0	38.4	75-2400	H	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	41	
42	Diamond.....303	1585	160	185	4870	B 7.00/20	DB7.00/20	Her WXB	6-3 1/2 x 5 1/2	298	33.7	77-2400	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	42	
43	Diamond T.....551-2	4000	186	1500	6200	P 36x6	DP36x6	Her WXC	6-4x4 1/2	339	38.7	72-2500	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	43	
44	Douglas.....CD4	3855	190	Op	5860	P 34x7	P 36x8	Bud EBU-I	6-4 1/2 x 5 1/2	312.0	38.4	74-2400	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	44	
45	Douglas.....CD6	3955	190	Op	5800	P 34x7	P 36x8	Bud DW6	6-3 1/2 x 5 1/2	331.0	33.7	73-2400	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	45	
46	Fageol.....250	2730	178	196	5750	P 34x7	DP34x7	Wau MK	6-4 1/2 x 5 1/2	381	40.8	82-2200	L	G	C	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	46	

Line Number	Make, Model and Capacity	General			Tire Size		Make and Model	Engine										Fuel System		Electrical System		Line Number					
		Chassis Price	Standard W.B.	Furnished	Gross Vehicle Wt. (See Key Note)	Chassis Wt. (Stripped)		Front	Rear	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings	Length Main Bearings	No. Main Bearings	Oiling System	Governor Make		Carburetor Make	Fuel Feed	Ignition System Make	Generator, Starter Make	
3 Ton—Cont'd																											
1	Autocar.....N	4600	174	242	22000	7990	P 36x8	DP36x8	Own	6-4 1/2 x 4 1/2	404.0	43.4	92-2400	L	L	CC	3	14 1/2	7	7	FP	Pe	Str	V	D-R	L-N	1
2	Available.....T-30	Op	Op	Op	16000	6500	P 34x7	DP34x7	Wau ML	6-4 1/2 x 4 1/2	358.1	38.4	67-2300	L	L	CC	3	12 1/2	7	7	FP	Wa	Sch	V	D-R	L-N	2
3	Available.....T-37	Op	Op	Op	16000	7500	P 34x7	DP34x7	Wau MK	6-4 1/2 x 4 1/2	380.9	40.8	87-2500	L	L	CC	3	12 1/2	7	7	FP	Wa	Sch	V	D-R	L-N	3
4	Brockway.....2 1/2-T	141	170	200	17000	6500	P 34x7	DP34x7	Con	6-4 1/2 x 4 1/2	311.0	38.4	73-2400	L	L	CC	3	13 1/2	7	7	CC	KP	Zen	M	A-L	A-L	4
5	Brockway.....175	170	170	224	17500	7200	P 34x7	DP34x7	Con	6-4 1/2 x 4 1/2	427.5	45.9	100-2400	L	L	CC	3	13 1/2	7	7	CC	KP	Zen	M	A-L	A-L	5
6	Brockway.....190	190	168	204	19000	7625	P 34x7	DP34x7	Con	6-4 1/2 x 4 1/2	380.9	40.8	89-2400	L	L	CC	3	13 1/2	7	7	CC	KP	Str	M	A-L	A-L	6
7	Chicago.....1-30-A	160	208	15740	6740	B 9.00/20		DB9.00/20	Wau 6ML	6-4 1/2 x 5 1/2	358.1	38.4	77-2200	L	L	CC	3	12 1/2	7	7	FP	Wa	Str	V	D-R	L-N	7
8	Clinton.....65	184	Op	14500	5925	S 34x5		DS34x5	Bud ETU	4-4 1/2 x 5 1/2	312.0	28.9	49-1900	L	L	CC	3	10 1/2	4	4	FP	Bu	Str	V	D-R	L-N	8
9	Coleman.....D40	130	180	16600	8500	P 40x8		P 40x8	Bud DW 6	6-3 1/2 x 5	330.0	33.7	73-2100	L	L	CC	3	12 1/2	7	7	FP	Bu	Str	V	D-R	L-N	9
10	Commerce.....60	4680	175	192	7100	36x6		DP36x6	Bud BA-6	6-4 1/2 x 5 1/2	312.0	28.9	49-1900	L	L	CC	3	10 1/2	4	4	FP	Bu	Str	V	D-R	L-N	10
11	Concord.....JX-6	4200	154	174	17200	6700	P 34x7	DP34x7	Bud DW 6	6-3 1/2 x 5	330.0	33.7	73-2100	L	L	CC	3	12 1/2	7	7	FP	Bu	Str	V	A-L	A-L	11
12	Concor.....CE	2530	160	224	20000	5950	B 8.25/20	DB8.25/20	Lyc TS	6-3 1/2 x 5	353.8	36.2	98-2700	L	L	CC	3	10	4	4	PC	No	Zen	M	A-L	A-L	12
13	Concor.....CEB	190	190	17000	7200	B 7.50/20		DB7.50/20	Con 20-R	6-4 1/2 x 4 1/2	380.8	40.8	90-2200	L	L	CC	3	13 1/2	7	7	FP	No	Zen	M	A-L	A-L	13
14	(Z) Corbitt.....12W6	165	220	14700	4910	B 7.50/20		DB7.50/20	Con 16R	6-4 1/2 x 4 1/2	311.0	38.4	72-2400	L	L	CC	3	11 1/2	7	7	FP	No	Zen	V	D-R	D-R	14
15	(Z) Corbitt.....12B6	163	220	14700	4870	B 7.50/20		DB7.50/20	Con 16R	6-4 1/2 x 4 1/2	311.0	38.4	72-2400	L	L	CC	3	11 1/2	7	7	FP	No	Zen	V	D-R	D-R	15
16	Day-Elder.....160	3695	156	204	16000	6600	B 7.50/20	DB9.00/20	Con 18R	6-4 1/2 x 4 1/2	339.3	38.4	82-2400	L	L	CC	3	13 1/2	7	7	FP	No	Zen	M	D-R	D-R	16
17	Diamond T.....506	2950	174	240	17500	6350	B 8.25/20	DB8.25/20	Her WXC3	6-4 1/2 x 4 1/2	384.0	43.3	85-2200	L	L	CC	3	13 1/2	7	7	FP	Ha	Str	V	D-R	D-R	17
18	Diamond T.....504	2650	166	208	17500	6350	B 8.25/20	DB8.25/20	Her WXC	6-4 1/2 x 4 1/2	339.0	38.4	74-2400	L	L	CC	3	13 1/2	7	7	FP	Ha	Str	V	A-L	A-L	18
19	Diamond T.....551	2250	168	186	15500	6000	B 7.50/20	DB7.50/20	Her WXC	6-4 1/2 x 4 1/2	339.0	38.4	74-2400	L	L	CC	3	13 1/2	7	7	FP	Ha	Str	V	A-L	A-L	19
20	Diamond T 603-3.4 Ton	3300	169	230	20000	7500	B 9.00/20	DB9.00/20	Her YXC	6-4 1/2 x 4 1/2	428.4	44.9	94-2200	L	L	CC	3	15	7	7	PC	Ha	Zen	M	A-L	A-L	20
21	Diamond T 606-3.4 Ton	3400	177	244	19000	7500	B 9.00/20	DB9.00/20	Her YXC2	6-4 1/2 x 4 1/2	453.4	48.6	100-2200	L	L	CC	3	15	7	7	PC	Ha	Zen	M	A-L	A-L	21
22	Dodge Bros.....1515	135	135	12250	4235	P 32x6		DP32x6	Own	6-3 1/2 x 4 1/2	241.0	27.3	78-3000	L	L	CC	3	11	7	7	FP	Ha	Str	V	D-R	L-N	22
23	Dodge Bros.....1565	165	165	12220	4520	P 32x6		DP32x6	Own	6-3 1/2 x 4 1/2	241.0	27.3	78-3000	L	L	CC	3	11	7	7	FP	Ha	Str	V	D-R	L-N	23
24	Dodge Bros.....1615	185	185	12715	4715	P 32x6		DP32x6	Own	6-3 1/2 x 4 1/2	241.0	27.3	78-3000	L	L	CC	3	11	7	7	FP	Ha	Str	V	D-R	L-N	24
25	Dodge Bros.....F-60	2645	146	146	18979	5543	P 32x6	DP32x6	Own	6-3 1/2 x 5	309.6	31.5	96-3000	L	L	CC	3	11 1/2	7	7	FP	Ha	Str	V	D-R	D-R	25
26	Dodge Bros.....F-61	2575	170	19429	5789	P 32x6		DP32x6	Own	6-3 1/2 x 5	309.6	31.5	96-3000	L	L	CC	3	11 1/2	7	7	FP	Ha	Str	V	D-R	D-R	26
27	Dodge Bros.....F-62	2695	195	195	19879	5901	P 32x6	DP32x6	Own	6-3 1/2 x 5	309.6	31.5	96-3000	L	L	CC	3	11 1/2	7	7	FP	Ha	Str	V	D-R	D-R	27
28	Douglas.....D4	4010	186	Op	20000	6500	S 36x10	Bud YBU-I	4-4 1/2 x 6	381.0	32.4	50-1400	L	L	CC	3	9 1/2	4	4	PC	Bu	Zen	E	L-N	L-N	28	
29	Douglas.....D6	4300	186	Op	20000	6800	P 36x6	DP38x7	Bud BUS	6-4 1/2 x 5	386.4	38.4	78-2300	L	L	CC	3	10 1/2	4	4	PC	Bu	Zen	E	L-N	L-N	29
30	Douglas.....D6 55	5000	216	Op	22000	7500	P 38x7	Bud K428	6-4 1/2 x 5 1/2	411.0	40.8	83-2100	L	L	CC	3	10 1/2	7	7	FP	No	Zen	M	A-L	A-L	30	
31	Duplex.....T44	2050	141	181	16000	5005	P 36x6	Bud EBUS-I	6-4 1/2 x 5 1/2	411.0	40.8	83-2100	L	L	CC	3	10 1/2	7	7	FP	No	Zen	M	A-L	A-L	31	
32	Duplex.....SAC	4750	166	Op	16000	7400	S 34x5	S 36x8	Bud K428	6-4 1/2 x 5 1/2	428.0	45.9	102-2400	L	L	CC	3	10 1/2	7	7	FP	No	Zen	M	A-L	A-L	32
33	Fageol.....300	3250	178	196	6250	B 9.00x20		DB9.00x20	Wau MK	6-4 1/2 x 4 1/2	381.0	40.8	82-2200	L	L	CC	3	12 1/2	7	7	FP	No	Zen	V	D-R	D-R	33
34	Federal T10B 2 1/2-T	2740	165	201	18000	6550	P 34x7	DP34x7	Con 16R	6-4 1/2 x 4 1/2	311.0	38.4	75-2200	L	L	CC	3	13 1/2	7	7	FP	KP	Zen	M	D-R	D-R	34
35	Federal T10W 2 1/2-T	2915	165	201	18000	6550	P 34x7	DP34x7	Con 16R	6-4 1/2 x 4 1/2	311.0	38.4	75-2200	L	L	CC	3	13 1/2	7	7	FP	KP	Zen	M	D-R	D-R	35
36	Fisher-Std.....30A	160	160	16800	5800	P 34x7		DP34x7	Con 11R	6-3 1/2 x 4 1/2	291.9	35.0	64-2500	L	L	CC	3	12 1/2	7	7	FP	Ha	Str	V	D-R	D-R	36
37	Fisher-Std.....31A	160	160	16800	5800	P 34x7		DP34x7	Con 11R	6-3 1/2 x 4 1/2	291.9	35.0	64-2500	L	L	CC	3	12 1/2	7	7	FP	Ha	Str	V	D-R	D-R	37
38	F.W.D.....30	4200	124	13960	6460	S 36x6		S 36x6	Own A	6-4 1/2 x 5 1/2	398.0	36.1	56-1350	L	L	CC	3	12 1/2	7	7	PC	Pe	Str	G	R-Bo	N-E	38
39	Garford.....60	4650	175	192	7100	P 36x6		DP36x6	Bud BA6	6-4 1/2 x 5 1/2	311.0	38.4	83-2100	L	L	CC	3	12 1/2	7	7	FP	Bu	Zen	V	A-L	A-L	39
40	(X) Gen. Mot.....T-26	1450	130	164	11000	4025	B 7.00/20	DB7.00/20	Own 257	6-3 1/2 x 4 1/2	257.5	28.3	76-2500	L	L	CC	3	8 1/2	4	4	PC	Ha	Mar	M	D-R	D-R	40
41	(X) Gen. Mot.....T-30	1750	141	164	12500	4705	P 32x6	DP32x6	Bulck	6-3 1/2 x 4 1/2	257.5	28.3	76-2500	L	L	CC	3	8 1/2	4	4	PC	Ha	Mar	M	D-R	D-R	41
42	(X) Gen. Mot.....T-31	1850	141	181	14000	4635	P 32x6	P 36x8	Own 257	6-3 1/2 x 4 1/2	257.5																

Line Number	Radiator Make	Clutch	Gear Set		Universal Make and No.	Make and Model	Rear Axle		Front Axle		Brakes		Frame		Body Mounting Data		Springs		Auxiliary Type	Line Number				
			Type and Make	Make and Model			Final Drive and Type	Drive and Torque	Gear Ratio	Reduc. in High	Reduc. in Low	Service	Area Service Brakes	Hand	Steering Gear Make	Dim. Side Rail	Type	Cap to Rear of Frame			Cap to Rear Axle	Width of Frame	Front	Rear
3 Ton—Cont'd																								
1	Own	dp.Lon	Own T	U	4	Opt	Spl	Own TE	2F	H 7.09	45.0	Tim 35000D	LO4IDV	574	FD	Ros	8x3x1/4	C	150	86 1/2	40x2 3/4	54x3 1/2	1	
2	You	D.B-L	B-L 51	U	4	No	Blo	Tim 58200H	WF	R 7.5	40.0	Shu 5572	L4IH	403	FD	Ros	7x2 1/2 x 1/4	P	Opt	Opt	32	40x2 1/2	50x3	2
3	You	D.B-L	B-L 51	U	4	No	Blo	Tim 58200H	WF	R 7.5	40.0	Shu 5572	L4IH	403	FD	Ros	7x2 1/2 x 1/4	P	Opt	Opt	32	40x2 1/2	50x3	3
4	G&O	D.B-L	B-L	U	4	No	Spl 3	Wis	2F	R 7.0	46.2	Shu	L4IHV	380	CD	Ros	7 1/2 x 3 1/4	T	142	84	34	40x2 1/2	54x3	4
5	G&O	D.B-L	B-L	U	4	No	Spl 3	Wis	2F	R 6.41	46.6	Shu	L4IHV	380	CD	Ros	8x3x1/4	T	142	84	34	40x2 1/2	54x3	5
6	G&O	D.B-L	B-L	U	4	No	Spl 3	Wis	2F	R 6.41	45.3	Shu	L4IHV	380	CD	Ros	8x3x1/4	T	142	84	34	40x2 1/2	54x3	6
7	Lon	P.B&B	B-L	U	4	No	Spl 3	Tim	WF	R 7.75	46.2	Tim 33020H	L4IH	631	TD	Ros	7x3x1/4	C	132	83	34	40x2 1/2	50x3	7
8	Chi	D.B-L	B-L 51	U	4	No	Spl 3	Tim 65720H	WF	R 7.75	46.2	Tim 33020H	L4IH	631	TD	Ros	7x3x1/4	C	132	83	34	40x2 1/2	50x3	8
9	Per	D.B-L	B-L 55	U	4	No	Blo 4	Tim 65706 HF	WF	R 8.50	45.5	Tim 15302	T2IM	185	2I	Ros	8x3 1/2 x 1/4	T	Opt	Opt	33 1/2	41 1/2 x 2 1/2	54 1/2 x 3	9
10	Per	D.Ful	Ful RU 16	U	4	No	Spl 5	Wis	2F	H 8.33	159	Wis	W24IM	185	2I	Ros	12x2 1/2 x 1/4	C	144	89	30	48x3	48x3	10
11	Lon	Ful	Ful VU	U	4	No	Blo	Tim 65706 DH	WF	R 8.5	63.0	Tim 15733H	L4IH	584	FX	Han	7x3 1/2 x 1/4	C	156	97 1/2	34	42x2 1/2	54x3	11
12	Own	D.B-L	B-L 51	U	4	No	Blo	Tim 65706 D	WF	R 9.3	49.7	Tim 15300 H	T2IMV	520	TD	Ros	7x3x1/4	C	127	84	34	38 1/2 x 2 1/2	50x3 1/2	12
13	Per	D.B-L	B-L 51	U	4	No	Blo	Tim 65706 D	WF	R 9.3	49.7	Tim 15300 H	T2IMV	520	TD	Ros	7x3x1/4	C	127	84	34	38 1/2 x 2 1/2	50x3 1/2	13
14	Per	D.Jon	Cov Rus-4	U	4	No	Blo 3	Tim 58200H	BF	H 5.55	29	Eat 423	L4IHV	659	FD	Ros	8 1/2 x 3 1/4	C	156	90	41 1/2	44x2 1/2	60x3	14
15	Per	P.B-L	B-L 314	U	4	No	Spl 3	Tim 64800H	WF	H 6.41	46.6	Tim 33000H	L4IH	578	TX	Ros	7x3 1/2 x 1/4	T	134	82	34	40x2 1/2	54x3	15
16	Per	P.B-L	B-L 314	U	4	No	Spl 3	Tim 64800H	WF	H 6.41	46.6	Tim 33000H	L4IH	578	TX	Ros	7x3 1/2 x 1/4	T	134	82	34	40x2 1/2	54x3	16
17	Per	D.B-L	B-L 51	U	4	No	Spl 3	Tim 65200H	WF	R 6.4	36.1	Tim 33000H	L4IH	398	TD	Ros	9x3 1/2 x 1/4	T	132	80 1/2	34	42x2 1/2	56x3	17
18	G&O	D.Cov	Cov	U	4	No	Spl 3	Wis 69317-BL	2F	H 6.41	46.6	Shu 5582B	L4IHV	408	TD	Ros	6 1/2 x 3 1/4	C	138	87 1/2	34	45 1/2 x 2 1/2	56x3	18
19	G&O	D.Cov	Cov	U	4	No	Spl 3	Wis 69317-BL	2F	H 6.41	46.6	Shu 5582B	L4IHV	408	TD	Ros	6 1/2 x 3 1/4	C	138	87 1/2	34	45 1/2 x 2 1/2	56x3	19
20	G&O	D.Cov	Cov	U	4	No	Spl 3	Wis 69317-BL	2F	H 6.41	46.6	Shu 5582B	L4IHV	408	TD	Ros	6 1/2 x 3 1/4	C	138	87 1/2	34	45 1/2 x 2 1/2	56x3	20
21	G&O	D.Cov	Cov	U	4	No	Spl 3	Wis 69317-BL	2F	H 6.41	46.6	Shu 5582B	L4IHV	408	TD	Ros	6 1/2 x 3 1/4	C	138	87 1/2	34	45 1/2 x 2 1/2	56x3	21
22	G&O	D.Cov	Cov	U	4	No	Spl 3	Wis 69317-BL	2F	H 6.41	46.6	Shu 5582B	L4IHV	408	TD	Ros	6 1/2 x 3 1/4	C	138	87 1/2	34	45 1/2 x 2 1/2	56x3	22
23	Fed	.....	Own	U	4	No	Spl 3	Wis 69317-BL	2F	H 6.41	46.6	Shu 5582B	L4IHV	408	TD	Ros	6 1/2 x 3 1/4	C	138	87 1/2	34	45 1/2 x 2 1/2	56x3	23
24	Fed	.....	Own	U	4	No	Spl 3	Wis 69317-BL	2F	H 6.41	46.6	Shu 5582B	L4IHV	408	TD	Ros	6 1/2 x 3 1/4	C	138	87 1/2	34	45 1/2 x 2 1/2	56x3	24
25	Fed	.....	Own	U	4	No	Spl 3	Wis 69317-BL	2F	H 6.41	46.6	Shu 5582B	L4IHV	408	TD	Ros	6 1/2 x 3 1/4	C	138	87 1/2	34	45 1/2 x 2 1/2	56x3	25
26	Lon	.....	Own	U	4	No	Spl 3	Wis 69317-BL	2F	H 6.41	46.6	Shu 5582B	L4IHV	408	TD	Ros	6 1/2 x 3 1/4	C	138	87 1/2	34	45 1/2 x 2 1/2	56x3	26
27	Lon	.....	Own	U	4	No	Spl 3	Wis 69317-BL	2F	H 6.41	46.6	Shu 5582B	L4IHV	408	TD	Ros	6 1/2 x 3 1/4	C	138	87 1/2	34	45 1/2 x 2 1/2	56x3	27
28	Lon	.....	Own	U	4	No	Spl 3	Wis 69317-BL	2F	H 6.41	46.6	Shu 5582B	L4IHV	408	TD	Ros	6 1/2 x 3 1/4	C	138	87 1/2	34	45 1/2 x 2 1/2	56x3	28
29	Own	D.Ful	Ful RU 16	U	4	No	Blo 4	Wis 892A	2F	R 7.25	34.8	Shu 5550	W2IMV	503	CX	Ros	8x2 1/2 x 1/4	T	168	98	31	45x3	54x3	29
30	Own	D.Ful	Ful RU 16	U	4	No	Blo 4	Wis 892A	2F	R 7.25	34.8	Shu 5550	W2IMV	503	CX	Ros	8x2 1/2 x 1/4	T	168	98	31	45x3	54x3	30
31	Own	D.Ful	Ful HOG	U	4	No	Blo 4	Wis 1418	2F	R 8.18	6.7	Shu 615	W2IMV	503	CX	Ros	10x2 1/2 x 1/4	T	223	121	31	45x3	54x4	31
32	Mod	D.B-L	B-L 51	U	4	No	Cle	Tim 65706	WF	R 8.5	45.5	Shu 5550	T2IM	520	TD	Ros	7x3 1/2 x 1/4	C	156	90	41 1/2	44x2 1/2	56x3	32
33	Mod	D.B-L	B-L 51	U	4	No	Cle	Tim 65706	WF	R 8.5	45.5	Shu 5550	T2IM	520	TD	Ros	7x3 1/2 x 1/4	C	156	90	41 1/2	44x2 1/2	56x3	33
34	Per	P.B-L	B-L 314	U	4	No	Spl 3	Tim 58200H	BF	H 6.83	44.5	Tim 33020H	L4IHV	398	TX	Ros	7 1/2 x 3 1/4	C	167 1/2	97 1/2	34	41x2 1/2	56x3	34
35	Lon	P.B&B	Own	U	4	No	P-S4	Tim 58200H	BF	H 6.83	44.5	Tim 33020H	L4IHV	398	TX	Ros	7 1/2 x 3 1/4	C	167 1/2	97 1/2	34	41x2 1/2	56x3	35
36	Lon	P.B&B	Own	U	4	No	P-S4	Tim 58200H	BF	H 6.83	44.5	Tim 33020H	L4IHV	398	TX	Ros	7 1/2 x 3 1/4	C	167 1/2	97 1/2	34	41x2 1/2	56x3	36
37	Lon	P.B-L	B-L 314	U	4	No	Spl 4	Tim 56200H	WF	R 6.16	40.6	Tim 33000H	L4IH	579	TX	Ros	7 1/2 x 3 1/4	C	119	81	34	42x2 1/2	54x3	37
38	Lon	P.B-L	B-L 314	U	4	No	Spl 4	Tim 56200H	WF	R 6.16	40.6	Tim 33000H	L4IH	579	TX	Ros	7 1/2 x 3 1/4	C	119	81	34	42x2 1/2	54x3	38
39	McC	O.M-E	Cot DAF	U	4	No	Spl 4	Tim 56200H	WF	R 6.16	40.6	Tim 33000H	L4IH	579	TX	Ros	7 1/2 x 3 1/4	C	119	81	34	42x2 1/2	54x3	39
40	Lon	D.Ful	Ful VU	U	4	No	Spl 5	Tim 65706 DH	WF	R 8.5	63.0	Tim 15733H	L4IH	584	FX	Han	7x3 1/2 x 1/4	C	156	97 1/2	34	42x2 1/2	54x3	40
41	Lon	D.Own	Own	U	4	No	Spl 4	Tim 65706 D	WF	H 5.67	28.8	Tim 15733H	B4IM	424	TX	Jac	6 1/2 x 3 1/4	C	107	59	34	38x2 1/2	50x3 1/2	41
42	Lon	D.Own	Own	U	4	No	Spl 4	Tim 65706 D	WF	H 5.67	28.8	Tim 15733H	B4IM	424	TX	Jac	6 1/2 x 3 1/4	C	107	59	34	38x2 1/2	50x3 1/2	42
43	Lon	D.Own	Own	U	4	No	Spl 4	Tim 65706 D	WF	H 5.67	28.8	Tim 15733H	B4IM	424	TX	Jac	6 1/2 x 3 1/4	C	107	59	34	38x2 1/2	50x3 1/2	43
44	Lon	D.Own	Own	U	4	No	Spl 4	Tim 65706 D	WF	H 5.67	28.8	Tim 15733H	B4IM	424	TX	Jac	6 1/2 x 3 1/4	C	107	59	34	38x2 1/2	50x3 1/2	44
45	Lon	D.Own	Own	U	4	No	Spl 4	Tim 65706 D	WF	H 5.67	28.8	Tim 15733H	B4IM	424	TX	Jac	6 1/2 x 3 1/4	C	107	59	34	38x2 1/2	50x3 1/2	45
46	Lon	D.Own	Own	U	4	No																		

Line Number	Make, Model and Capacity	General		Tire Size		Engine										Fuel System		Electrical System		Line Number							
		Chassis Price	Standard W.B.	Max. W.B. Furnished	Gross Vehicle Wt. (See Key Note)	Chassis Wt. (Stripped)	Front	Rear	Make and Model	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings	Length Main Bearings	No. Main Bearings		Oiling System	Governor Make	Carburetor Make	Fuel Feed	Ignition System Make	Generator, Starter Make	
3½ Ton																											
1	Acme.....45D	3740	125	Op	14050	4850	B 7.50/20	B 10.50/20	Her OXC	4-4½x5	283.5	28.9	55-2000	L	G	C	3½	9½	3	FP	Ha	Zen	G	Eis	A-L	1	
2	Amer. LaFrance 12R.....	4500	125	Op	20000	7400	P 36x8	DP36x8	Own	6-4½x5½	411.0	40.8	80-1800	H	G	C	3½	10½	3	FP	Ha	Zen	V	D-R	A-L	2	
3	Atterbury.....70	4600	122	Op	20000	8400	B 9.75/20	DP40x8	Con 20R	6-4½x5½	380.0	40.8	87-2400	H	G	C	3½	10½	3	FP	Ha	Zen	V	D-R	A-L	3	
4	Autocar.....HS	4800	114	161	24000	7505	P 40x8	DP40x8	Own	6-4½x5½	350.0	43.4	45-1450	L	G	C	3½	14½	7	FP	Pe	Str	G	D-R	L-N	4	
5	Autocar.....3-3½ T. SHS	4800	114	161	24000	8075	P 40x8	DP40x8	Own	6-4½x5½	404.0	43.4	92-2400	L	G	C	3½	14½	7	FP	Pe	Str	V	D-R	L-N	5	
6	Autocar.....SCHS	4800	157	203	24000	7885	P 40x8	DP40x8	Own	6-4½x5½	404.0	43.4	92-2400	L	G	C	3½	14½	7	FP	Pe	Str	V	D-R	L-N	6	
7	Autocar.....3-3½ T. TEA	5350	192	242	22000	8625	P 36x8	DP36x8	Own	6-4½x5½	404.0	43.4	92-2400	L	G	C	3½	14½	7	FP	Pe	Str	V	D-R	L-N	7	
8	Autocar.....N	4600	174	242	22000	7990	P 36x8	DP36x8	Own	6-4½x5½	404.0	43.4	92-2400	L	G	C	3½	14½	7	FP	Pe	Str	V	D-R	L-N	8	
9	Available.....T-39	Op	Op	Op	19000	7800	P 36x8	DP36x8	Wau SRL	6-4½x5½	462.0	45.9	88-2200	L	G	C	3½	13½	7	FP	Wa	Zen	V	D-R	D-R	9	
10	Available.....T-43	Op	Op	Op	19000	7950	P 36x8	DP36x8	Wau SRL	6-4½x5½	462.0	45.9	88-2200	L	G	C	3½	13½	7	FP	Wa	Zen	V	D-R	D-R	10	
11	Brooklyn.....3-4T. 195	4400	120	224	19500	7500	P 36x8	DP36x8	Con	6-4½x5½	380.0	40.8	85-2400	H	G	C	3½	13½	7	FP	Ha	Zen	M	A-L	A-L	11	
12	Clinton.....85-6	4400	120	224	19500	7575	P 34x7	DP34x7	Bud BUS	6-4½x5	386.4	43.8	74-2400	L	G	C	3½	9½	4	FP	No	Str	Bu	Zen	V	D-R	12
13	Coleman-D-40X 3½-5t	130	184	1100	9700	P 40x8	P 40x8	Bud BA6	6-4½x5½	411.0	40.8	105-2200	L	G	C	3½	9½	4	FP	No	Str	Bu	Zen	V	D-R	13	
14	Commerce.....80	5250	175	192	19400	8200	S 36x12	S 36x12	Bud BA6	6-4½x5½	411.0	40.8	83-2100	L	G	C	3½	9½	4	FP	No	Str	Bu	Zen	V	D-R	14
15	Concord.....JLX-6	4500	202	222	19400	7000	P 34x7	DP34x7	Bud BA6	6-4½x5½	411.0	40.8	85-2000	L	G	C	3½	9½	4	FP	No	Str	Bu	Zen	V	D-R	15
16	Corbitt.....15B6	174	220	17500	5870	P 34x7	DP34x7	Con 16R	6-4½x5	311	38.4	72-2400	H	G	C	3½	11½	7	FP	No	Str	Bu	Zen	V	D-R	16	
17	Corbitt.....15W6	183	224	17500	6160	P 34x7	DP34x7	Con 16R	6-4½x5	311	38.4	72-2400	H	G	C	3½	11½	7	FP	No	Str	Bu	Zen	V	D-R	17	
18	Duplex.....EF	170	220	17000	6200	S 36x8	S 36x8	Bud EBU-1	6-4½x5½	312.0	28.9	57-2100	L	G	C	3½	13½	7	FP	No	Str	Bu	Zen	V	D-R	18	
19	Federal.....U-6-3½ T. 61-A	3860	165	218	20000	7220	P 36x8	DP34x7	Con 18R	6-4½x5½	339.0	38.4	85-2200	H	G	C	3½	13½	7	FP	Ha	Zen	M	D-R	A-L	19	
20	Fisher-Stad.....85-A	4400	120	224	19500	7500	P 36x8	DP34x7	Con 16R	6-4½x5½	311	38.4	73-2400	H	G	C	3½	13½	7	FP	Ha	Zen	M	D-R	A-L	20	
21	F.W.D.....CU-6	5120	148	180	17800	7500	P 38x9	P 38x9	Wau SRL	6-4½x5½	411.0	40.8	92-2300	L	G	C	3½	13½	7	FP	Wa	Zen	V	D-R	NE	21	
22	Garford.....80	5250	175	192	19400	8200	S 36x6	S 36x12	Bud BA6	6-4½x5½	411.0	40.8	83-2100	L	G	C	3½	9½	4	FP	No	Str	Bu	Zen	V	D-R	22
23	(X) Gen. Mot. T-31	1845	141	181	14000	4695	P 36x6	DP32x6	Own 257	6-3½x4½	257.5	28.3	76-2500	H	G	C	2½	8½	4	FP	Ha	Mar	M	D-R	D-R	23	
24	(X) Gen. Mot. T-42	1960	141	181	15000	4905	P 36x6	DP36x6	Bulck	6-3½x4½	257.5	28.3	76-2500	H	G	C	2½	8½	4	FP	Ha	Mar	M	D-R	D-R	24	
25	(X) Gen. Mot. T-44	2050	141	181	16000	5005	P 36x6	DP36x6	Bulck	6-3½x4½	257.5	28.3	76-2500	H	G	C	2½	8½	4	FP	Ha	Mar	M	D-R	D-R	25	
26	(X) Gen. Mot. T-45	1990	141	181	16000	5050	P 32x6	DP32x6	Own 257	6-3½x4½	257.5	28.3	76-2500	H	G	C	2½	8½	4	FP	Ha	Mar	M	D-R	D-R	26	
27	Gottfredson.....RW 76A	1900	141	181	16000	5050	P 32x6	DP32x6	Own 257	6-3½x4½	257.5	28.3	76-2500	H	G	C	2½	8½	4	FP	Ha	Mar	M	D-R	D-R	27	
28	Gottfredson.....RD 76A	1900	141	181	16000	5050	P 32x6	DP32x6	Own 257	6-3½x4½	257.5	28.3	76-2500	H	G	C	2½	8½	4	FP	Ha	Mar	M	D-R	D-R	28	
29	Gramm-Bernstein.....A	162	212	20000	7100	B9.00/20	DB9.00/20	DB9.00/20	Lyc AEC	8-3½x4½	353.0	36.5	97-2750	L	G	C	3½	10½	4	FP	Mo	Str	M	A-L	A-L	29	
30	G-P 6-56, 3½-5	3325	158	195	15000	7100	B9.00/20	DB9.00/20	Lyc AEC	8-3½x4½	353.0	36.5	97-2750	L	G	C	3½	10½	4	FP	Mo	Str	M	A-L	A-L	30	
31	G-P 6-58, 3½-5	3485	158	195	15000	7200	B9.00/20	DB9.00/20	Lyc AEC	8-3½x4½	353.0	36.5	97-2750	L	G	C	3½	10½	4	FP	Mo	Str	M	A-L	A-L	31	
32	(V) Hug.....C87, 87M	160	205	21800	7500	P 36x8	DP36x8	Bud DW6	6-3½x5	330.0	33.7	70-2100	L	G	C	3½	9	4	FP	No	Str	Bu	Zen	V	D-R	32	
33	Hug.....41S	160	205	21800	7500	P 36x8	DP36x8	Bud K428	6-3½x5	330.0	33.7	70-2100	L	G	C	3½	9	4	FP	No	Str	Bu	Zen	V	D-R	33	
34	Indiana.....3-4T. 195	170	224	19500	7500	P 36x8	DP36x8	Con	6-4½x5½	380.0	40.8	89-2400	H	C	C	2½	13½	7	FP	No	Str	Bu	Zen	V	D-R	34	
35	International.....W2	3900	148	200	21000	8400	S 36x5	S36x10	Has 151	4-4½x5½	312	28.9	59-1800	H	C	C	2½	8½	3	FP	HS	Zen	U	R-Bo	D-R	35	
36	Kleiber.....210	190	192	21000	7100	B9.00/20	DB9.00/20	Con 20R	6-4½x5½	380.0	40.8	89-2400	H	C	C	2½	8½	3	FP	HS	Zen	U	R-Bo	D-R	36		
37	LaFrance-Republic-H-2	4500	140	200	18500	7500	B 8.25/20	DB8.25/20	Con 18R	6-4½x5½	339.0	38.4	86-2300	L	G	C	3½	10½	4	FP	Ha	Zen	M	A-L	A-L	37	
38	Larabee.....E	4500	140	200	18500	7500	B 8.25/20	DB8.25/20	Con 18R	6-4½x5½	339.0	38.4	86-2300	L	G	C	3½	10½	4	FP	Ha	Zen	M	A-L	A-L	38	
39	Netco.....HC	5350	146	165	18500	8000	B 10.50/20	B 10.50/20	Wau 6SRL	6-4½x5½	462.0	45.9	100-2400	L	G	C	3½	13½	7	FP	Wa	Zen	M	A-L	A-L	39	
40	Onkosh.....60DC	4745	175	192	19400	8200	S 36x12	S 36x12	Bud BA6	6-4½x5½	411.0	40.8	83-2100	L	G	C	3½	9½	4	FP	No	Str	Bu	Zen	V	D-R	40
41	Relay.....80	5250	175	192	19400	8200	S 36x12	S 36x12	Bud BA6	6-4½x5½	411.0	40.8	83-2100	L	G	C	3½	9½	4	FP	No	Str	Bu	Zen	V	D-R	41
42	Relay.....80	5250	175	192	19400	8200	S 36x12	S 36x12	Bud BA6	6-4½x5½	411.0	40.8	83-2100	L	G	C	3½	9½	4	FP	No	Str	Bu	Zen	V	D-R	42
43	Service.....FD97	192	222	20000	7955	P 36x8	DP36x8	Wau MK	6-4½x5½	381	40.8	85-2500	H	G	C	3½	12½	7	FP	Wa	Zen	V	D-R	D-R	43		
44	Sterling.....FD97	192	222	20000	7955	P 36x8	DP36x8	Wau MK	6-4½x5½	381																	

Line Number	Radiator Make	Clutch	Gear Set		Universal Make and No.	Rear Axle		Front Axle		Brakes		Frame		Body Mounting Data		Springs		Auxiliary Type	Line Number						
			Type and Make	Make and Model		Location	No. of Forward Speeds	Aux. Locat. and Speeds	Final Drive and Type	Drive and Torque	Gear Ratios	Make and Model	Service	Area Service Brakes	Hand	Steering Gear Make	Dim. Side Rail			Type	Cab to Rear of Frame	Cab to Rear Axle	Width of Frame	Front	Rear
3 1/2 Ton																									
1	Per	B-L	B-L 51 5	U	5	No	Spl	Wis 8817B	2F	H 9.51 56.7	Shu 550	W2IM	534 2I	Ros	6x3 1/2 x 1/4	P	70 1/2	54 1/2	34	40x2 1/2	45x3	N	1		
2	G&O	P.B&B	B-L 51-5	U	4	No	Spl	Tim 65706BY	WF	H 6.00 66.0	Tim 15733BY	L4IH	765	Ros	8x3 1/2 x 1/4	C	132	132	34	40x3	56x3 1/2	N	2		
3	Per	D-B-L	B-L 51-5	U	4	No	Spl	Tim 65720H	WF	H 8.46 53.6	Tim 35000H	L4IH	516 2IM	Ros	7x2 1/2 x 1/4	C	135 1/2	76	34 1/2	41x2 1/2	53x3	N	3		
4	Own	dp.Lon	Own T	U	4	No	Spl	Own C	2F	H 8.46 53.6	Own J	O2IM	516 2IM	Ros	7x2 1/2 x 1/4	C	135 1/2	76	34 1/2	41x2 1/2	53x3	N	4		
5	Own	dp.Lon	Own T	U	4	No	Spl	Own C	2F	H 8.46 53.6	Own J	O2IM	516 2IM	Ros	7x2 1/2 x 1/4	C	135 1/2	76	34 1/2	41x2 1/2	53x3	N	5		
6	Own	dp.Lon	Own T	U	4	No	Spl	Own C	2F	H 8.46 53.6	Own J	O2IM	516 2IM	Ros	7x2 1/2 x 1/4	C	135 1/2	76	34 1/2	41x2 1/2	53x3	N	6		
7	Own	dp.Lon	Own T	U	4	No	Spl	Own T E	2F	H 7.09	Tim 26450	L4IH	602 TD	Ros	9x3x1/4	C	175 1/2	105	34 1/2	42 1/2 x 3	54 1/2 x 4	N	7		
8	Own	dp.Lon	Own T	U	4	No	Spl	Own T E	2F	H 7.09	Tim 35000D	L4IH	574 FD	Ros	8x3x1/4	C	150	86 1/2	34 1/2	40x2 1/2	54x3	N	8		
9	You	D-B-L	B-L 51	U	5	No	Blo	Tim 65730	WF	R 8.5 50.5	Shu 5572	O2IM	492 FD	Ros	7x2 1/2 x 1/4	P	Opt	Opt	32	40x2 1/2	50x3	N	9		
10	You	D-B-L	B-L 60	U	7	No	Blo	Tim 65720	WF	R 8.5 50.5	Shu 5572	L4IH	492 FD	Ros	7x2 1/2 x 1/4	P	Opt	Opt	32	40x2 1/2	50x3	N	10		
11	G&O	D-B-L	B-L	U	4	No	Spl 3	Wis	2F	H 6.8 49.5	Shu	L4IHV	471 CD	Ros	8 1/2 x 3 x 1/4	T	142	84	34 1/2	40x2 1/2	54x3	N	11		
12	Per	B-L	B-L 55	U	4	No	Spl 4	Tim65706 HP	WF	R 7.75 73.6	Tim 15302	T2IH	...	RI	8x3 1/2 x 1/4	T	142	84	33 1/2	43 1/2 x 3	51 1/2 x 3	N	12		
13	R-T	D-Ful	Ful R U16	A	8	2	Spl	Wis	2F	H 8.33 159	Wis	W2/4IM	...	TD	12x2 1/2 x 1/4	C	144	89	30	48x3	48x3	N	13		
14	Lon	P.B&B	B-L 60 Max	U	7	No	Blo	Tim 66700DP	WF	H 10.3 98.2	Tim 16302	L4IH	524 TX	Ros	7x3 1/2 x 1/4	C	144	94 1/2	34	40x2 1/2	50x3	N	14		
15	Own	D-B-L	B-L 51	U	4	No	Blo	Tim 65706D	WF	R 6.1 32.6	Tim 15300	T2IMV	520 TD	Ros	7x3x1/4	C	144	94 1/2	34	38 1/2 x 2 1/2	50 1/2 x 3	N	15		
16	Per	P-B-L	B-L 314	U	4	No	Spl 3	Tim 58200	BF	R 6.1 32.6	Tim 33000H	L4IH	660 TX	Ros	7x3 1/2 x 1/4	C	144	97	34	40x2 1/2	54x3	N	16		
17	Per	P-B-L	B-L 314	U	4	No	Spl 3	Tim 65200	WF	H 8.00 86.0	Own	OP4M	...	TX	6x3 x 1/4	I	119	81 1/2	34	42x2 1/2	54x3	N	17		
18	Lon	D-B-L	B-L	U	4	No	Pet 2	Own	2F	H 8.16 32.9	Tim 33000H	L4IH	660 CD	Ros	6 1/2 x 2 1/2 x 1/4	C	144	79	32	43x2 1/2	54x3	N	18		
19	Lon	P.B&B	B-L 60	U	7	No	P-S 4	Tim 65706	WF	R 8.5 50.5	Shu 5572	L4IH	660 CD	Ros	7x3x1/4	C	132	93	36	42 1/2 x 2 1/2	52 1/2 x 2 1/2	N	19		
20	Lon	B-L	B-L 51	U	4	No	Spl 4	Own U	2F	H 8.9 88.6	Own U	O4XM	252 2I	Ros	7x3x1/4	C	132	93	36	42 1/2 x 2 1/2	52 1/2 x 2 1/2	N	20		
21	Per	O.H-S	Own	U	4	No	Spl 4	Own U	2F	H 8.9 88.6	Own U	O4XM	252 2I	Ros	7x3x1/4	C	132	93	36	42 1/2 x 2 1/2	52 1/2 x 2 1/2	N	21		
22	Lon	P.B&B	B-L 60 Max	U	7	No	Blo	Tim 66700DP	WF	R 10.3 98.2	Tim 16302	L4IH	524 TX	Ros	7x3 1/2 x 1/4	C	144	94 1/2	34	40x2 1/2	50x3	N	22		
23	Lon	D.Own	Own	U	4	No	Spl	Own	2F	H 8.5 63.5	Own	B4IM	524 TX	Ros	6 1/2 x 3 x 1/4	C	107	59	34 1/2	38x2 1/2	50x3	N	23		
24	Lon	D.Own	Own	U	4	No	Spl	Own	2F	H 8.5 63.5	Own	B4IM	524 TX	Ros	6 1/2 x 3 x 1/4	C	107	59	34 1/2	38x2 1/2	50x3	N	24		
25	Lon	D.Own	Own	U	4	No	Spl	Own	2F	H 8.5 63.5	Own	B4IM	524 TX	Ros	6 1/2 x 3 x 1/4	C	107	59	34 1/2	38x2 1/2	50x3	N	25		
26	Lon	D.Own	Own	U	4	No	Spl	Own	2F	H 8.5 63.5	Own	B4IM	524 TX	Ros	6 1/2 x 3 x 1/4	C	107	59	34 1/2	38x2 1/2	50x3	N	26		
27	McC	D-B-L	B-L 55-7	U	4	No	Spl	Tim 65720H	WF	R 8.5 50.7	Tim 35000H	L4IH	768 FD	Ros	8x3 1/2 x 1/4	C	134	82 1/2	34	42x2 1/2	56x3	N	27		
28	McC	D-B-L	B-L 55-7	U	4	No	Spl	Tim 65720H	WF	R 8.5 50.7	Tim 35000H	L4IH	768 FD	Ros	8x3 1/2 x 1/4	C	134	82 1/2	34	42x2 1/2	56x3	N	28		
29	You	D-B-L	B-L 55 Max	U	7	No	Blo	Tim 65706H	WF	R 7.25 68.8	Tim 15733-H	L4IHV	490 TD	Ros	7 1/2 x 3 x 1/4	C	134	82 1/2	34	42x2 1/2	56x3	N	29		
30	Own	D-Ful	Ful VUOG	U	5	No	M.M.6	Tim 58200H	FF	R 7.80 56.0	Tim 33000H	L4IH	660 CD	Ros	10x3 1/2 x 1/4	T	144	94 1/2	34	40x2 1/2	50x3	N	30		
31	Own	D-Ful	Ful VUOG	U	5	No	M.M.6	Tim 58200H	FF	R 7.80 56.0	Tim 33000H	L4IH	660 CD	Ros	10x3 1/2 x 1/4	T	144	94 1/2	34	40x2 1/2	50x3	N	31		
32	You	D-B-L	B-L 55-7	U	4	No	Spl 3	Wis 1237Q	2F	H 8.64 82.1	Shu 610	W2IM	420 TD	Ros	7x3 1/2 x 1/4	I	96 1/2	64 1/2	34 1/2	41 1/2 x 2 1/2	54 1/2 x 3	N	32		
33	You	B-L	B-L 51-5	U	5	No	Blo 3	Wis 1237H	2I	H 8.64 82.1	Shu 632 3	L4IH	...	CD	8x3x1/4	I	108	74	31	40x2 1/2	54 1/2 x 3	N	33		
34	G&O	D-B-L	B-L	U	4	No	Spl 3	Wis	2F	H 6.8 49.5	Shu	L4IHV	471 CD	Ros	8 1/2 x 3 x 1/4	T	142	84	34 1/2	40x2 1/2	54x3	N	34		
35	Own	P.Own	Own	U	4	No	Spl	Own 1200	2F	H 9.95 83.9	Own 400	BE4IM	710 2I	Own	7x3 1/2 x 1/4	T	106 1/2	73 1/2	34	41 1/2 x 3	56x3 1/2	N	35		
36	Own	D-B-L	B-L 55	U	4	No	Spl 3	Tim 65720H	WF	R 8.5 50.7	Tim 35000H	L4IH	768 FD	Ros	8x3 1/2 x 1/4	C	134	82 1/2	34	42x2 1/2	56x3	N	36		
37	Per	D-B-L	B-L MGU	U	4	No	Spl 3	Wis 69317	2F	H 7.25 77.0	Tim 33020H	L4IHV	658 FD	Han	8x3 1/2 x 1/4	C	137 1/2	90	32	39x2 1/2	50x3	N	37		
38	Per	D-B-L	B-L 51	U	4	No	Spl 2	Tim 65200D	WF	H 7.7 47.4	Tim 15733H	L4IH	650 TD	Ros	8x3 1/2 x 1/4	C	132	96	34	40x2 1/2	50x3	N	38		
39	Mod	D-B-L	B-L 55	U	4	No	Pet 2	Tim 65704	WF	R 7.25 68.8	Tim 15733	2M	520 DI	Ros	9x3x1/4	C	132	96	34	40x2 1/2	50x3	N	39		
40	You	D-Ful	Ful MGOG	U	8	No	Blo 4	Wis 1567H	2F	R 9.11 74.7	Shu 5532	L4IH	...	TD	8x3 1/2 x 1/4	I	108	74	31	40x2 1/2	54x3	N	40		
41	Mod	D-B-L	B-L 60	U	7	No	Blo 3	Own	2R	H 8.94 84.9	Own	Own	142 2I	Han	7x2 1/2 x 1/4	C	113 1/2	83 1/2	34	2 1/2 x 4	50x3	N	41		
42	Lon	Ful	Ful VU	U	5	No	Blo	Own 60	2R	H 8.94 84.9	Own	L4IH	584 FX	Han	7x3 1/2 x 1/4	C	156	97 1/2	34	42x2 1/2	54x3	N	42		
43	Lon	P.B&B	Cov SHO	U	8	No	Blo	Own 74	2R	H 9.95 84.2	Tim 16302	L4IH	...	Ros	7x3 1/2 x 1/4	C	144	94 1/2	34	40x2 1/2	50x3	N	43		
44	Lon	P.B&B	B-L 60 Max	U	7	No	Blo	Tim 66700DP	WF	R 10.3 98.2	Tim 16302	L4IH	524 TX	Ros	7x3 1/2 x 1/4	C	144	94 1/2	34	40x2 1/2	50x3	N	44		
45	Mod	D.Own	Own	U	4	No	Spl	Tim	w/2	R 7.75 51.6	Tim	L4IHV	664 CX	Ros	12x3 1/2 x 1/4	C	172	108	34	48x3	54x3	N	45		
46	Mod	D.Own	Own	U	4	No	Spl	Tim	w/2	R 7.75 51.6	Tim	L4IHV	664 CX	Ros	12x3 1/2 x 1/4	C	172	108	34	48x3	54x3	N	46		
47	Mod	D.Own	Own	U	4	No	Spl	Tim	CD	R 9.3 61.2	Tim	O2IMV	576 FX	Ros	12x3 1/2 x 1/4	C	172	108	34	48x3	54x3	N	47		
48	Mod	D-Ful	Ful	U	12	A3	Spl 3	Tim	WF	R 7.25 127	Sal	B4IM	...	TX	Ros	9x2 1/2 x 1/4	C	136 1/2	79						

Line Number	Make, Model and Capacity	General		Tire Size		Engine										Fuel System		Electrical System		Line Number						
		Chassis Price	Standard W.B.	Gross Vehicle Wt. (See Key Note)	Chassis Wt. (Stripped)	Front	Rear	Make and Model	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings	Length Main Bearings	No. Main Bearings	Oiling System		Governor Make	Carburetor Make	Fuel Feed	Ignition System Make	Generator, Starter Make	
4 Ton—Cont'd																										
1	Sterling FW97, FD97	192	222	Op	23000	7955	P 36x8	DP36x8	Wau MK	6-4 1/2 x 4 1/2	381	40.8	85-2500	L	G	C	3 1/2	12 1/2	7	CC	Wau	Zen	M	D-R	D-R	1
2	Sterling FW97S, FD97S	192	222	Op	23000	8200	P 36x8	DP36x8	Wau SRL	6-4 1/2 x 5 1/2	462	45.9	102-2400	L	G	C	3 1/2	13 1/2	7	CC	Wau	Zen	M	D-R	D-R	2
3	Sterling FW115, FD115	192	222	Op	23000	8555	P 40x8	DP40x8	Wau SRL	6-4 1/2 x 5 1/2	462	45.9	102-2400	L	G	C	3 1/2	13 1/2	7	CC	Wau	Zen	M	D-R	D-R	3
4	Sterling... FC107	192	222	Op	23000	8050	P 36x8	DP36x8	Wau SRL	6-4 1/2 x 4 1/2	462	45.9	102-2400	L	G	C	3 1/2	13 1/2	7	CC	Wau	Zen	M	D-R	D-R	4
5	Sterling... FC120	192	222	Op	23000	8550	P 40x8	DP40x8	Wau MK	6-4 1/2 x 4 1/2	381	40.8	85-2500	L	G	C	3 1/2	12 1/2	7	CC	Wau	Zen	M	D-R	D-R	5
6	Ward La France 35R	Op	Op	Op	23000	8200	B 9.75/20	DB9.75/20	Wau SRL	6-4 1/2 x 4 1/2	462	45.9	97-2000	L	G	C	3 1/2	13 1/2	7	CC	Wau	Zen	M	D-R	D-R	6
7	Ward-La France 35B	Op	Op	Op	23000	8200	B 9.75/20	DB9.75/20	Lyc	6-4 1/2 x 4 1/2	420	45.9	102-2400	L	G	C	3 1/2	13 1/2	7	CC	Wau	Zen	M	D-R	D-R	7
8	White... 642-4 Ton	6750	180	214	24000	10000	P 40x8	DP40x8	Own IAB	6-4 1/2 x 5 1/2	519	40.8	85-2500	L	G	C	3 1/2	12 1/2	7	CC	Wau	Zen	M	D-R	D-R	8
9	Witt-Will... R4X	4440	159	Op	21600	8000	P 9.75/20	DP9.75/20	Con 20R	6-4 1/2 x 4 1/2	381	40.8	88-2200	H	C	C	2 1/2	13 1/2	7	FP	Owd	Zen	E	L-N	L-N	9
10	Witt-Will... R4X	4600	159	Op	21600	8000	P 9.75/20	DP9.75/20	Con 21R	6-4 1/2 x 4 1/2	427	45.9	100-2600	H	C	C	2 1/2	13 1/2	7	FP	No	Zen	E	L-N	L-N	10
11	Woods... DA-115	3595	168	182	17500	7200	B 9.75/20	DB9.75/20	Her YXC 3	6-4 1/2 x 4 1/2	479	51.2	104-2200	L	G	C	3 1/2	15	5	PC	Ha	Zen	M	R-Bo	A-L	11
12	World... DA-115	3595	168	182	17500	6100	P 36x8	DP36x8	Lyc HD	6-4 1/2 x 4 1/2	298.6	33.8	115-3300	L	G	C	3 1/2	10	5	PC	Ha	Zen	M	A-L	A-L	12
4 1/2 Ton																										
13	Gottf'dson RDRW96A	5500	168	206	24000	8500	B 9.75/20	DB9.75/20	Buda K479	6-4 1/2 x 4 1/2	479.0	51.2	100-2000	L	G	C	3 1/2	11 1/2	7	FP	Ha	Zen	M	D-R	D-R	13
14	Larrabee 85...	23650	168	206	24000	8800	B 9.75/20	DB9.75/20	Con 21R	6-4 1/2 x 4 1/2	424.4	45.9	97-2400	L	G	C	3 1/2	13 1/2	7	FP	Ha	Zen	M	D-R	D-R	14
15	Ward La France 45D	Op	Op	Op	24000	8600	P 36x8	DP36x8	Wau SRL	6-4 1/2 x 5 1/2	462	45.9	97-2000	L	G	C	3 1/2	13 1/2	7	FP	Wau	Zen	P	D-R	D-R	15
5 Ton																										
16	Acme... 10X Spec	192	Op	Op	23500	9400	B10.50/20	DB10.50/20	Con 21R	6-4 1/2 x 4 1/2	428.4	45.9	100-2200	L	H	C	2 1/2	13 1/2	7	PC	Ha	Str	M	A-L	A-L	16
17	Acme... 10X	194	Op	Op	23500	9600	B10.50/20	DB10.50/20	Con 15H	6-4 1/2 x 5 1/2	548.6	48.6	105-2000	L	H	C	3 1/2	13 1/2	7	PC	Pe	Str	M	A-L	A-L	17
18	Am. La Fra... 12R	190	Op	Op	22000	7500	B9.75/20	DB9.75/20	Own	6-4 1/2 x 5 1/2	410.9	40.8	75-1800	L	H	C	3 1/2	10 1/2	4	FP	On	Zen	M	D-R	D-R	18
19	Am. LaF. Big Ch. 16R	6725	226	242	24000	10000	P 40x8	DP40x8	Own	6-4 1/2 x 5 1/2	572.5	48.6	115-1800	L	H	C	3 1/2	10 1/2	4	FP	On	Zen	M	D-R	D-R	19
20	Armedbury... 61	Op	Op	Op	19420	6700	P 36x8	DP36x8	Her WXC2	6-4 1/2 x 4 1/2	360	40.8	80-2200	L	H	C	3 1/2	13 1/2	7	PC	Ha	Zen	V	A-L	A-L	20
21	Atterbury... 24	Op	Op	Op	28000	9100	B10.50/20	DB10.50/20	Con 21R	6-4 1/2 x 4 1/2	428.4	45.9	101-2400	H	C	C	2 1/2	13 1/2	7	FP	Ha	Zen	V	A-L	A-L	21
22	Autocar 3 1/2 & 5T	C 5500	172	186	26000	9705	P 42x9	DP42x9	Own	6-4 1/2 x 4 1/2	453	48.6	101-2400	L	H	C	3 1/2	14 1/2	7	FP	Pe	Str	V	D-R	L-N	22
23	Autocar... TFA	6100	192	242	26000	9430	P 38x9	DP38x9	Own	6-4 1/2 x 4 1/2	453	48.6	101-2400	L	H	C	3 1/2	14 1/2	7	FP	Pe	Str	V	D-R	L-N	23
24	Available... T-50	Op	Op	Op	22000	9300	B 9.75/20	DB9.75/20	Wau 6RB	6-5 1/2 x 5 1/2	677.4	60.0	125-2000	L	H	C	3 1/2	11 1/2	4	FP	Wau	Zen	V	D-R	D-R	24
25	Brookway 4-5T-220	170	224	220	24000	8400	P 40x8	DP40x8	Con	6-4 1/2 x 4 1/2	427.5	45.9	100-2400	H	C	C	2 1/2	13 1/2	7	CC	Wau	Zen	M	A-L	A-L	25
26	Clinton... 120L	5500	204	Op	27050	9550	P 36x8	DP36x8	Bud BTU	4-5 1/2 x 5 1/2	510.5	40.0	61-1400	L	H	C	2 1/2	13 1/2	3	FP	Co	Zen	V	Spl	A-Bo	26
27	Clinton... 120LM	5500	204	Op	27150	9650	P 36x8	DP36x8	Bud BTU	4-5 1/2 x 5 1/2	510.5	40.0	61-1400	L	H	C	2 1/2	13 1/2	3	FP	Co	Zen	V	Spl	A-Bo	27
28	Coleman X-100 5-6 T	144	184	2430	24000	11200	P 42x9	P 42x9	Bud BA6	6-4 1/2 x 5 1/2	411	40.8	105-2200	L	H	C	2 1/2	9 1/2	4	FP	Co	Zen	V	D-R	D-R	28
29	Coleman X-100F 5-7 1/2	144	184	2430	24000	11300	P 42x9	P 42x9	Bud GL	6-4 1/2 x 5 1/2	572.5	48.6	120-2000	L	H	C	3 1/2	10 1/2	4	FP	Co	Zen	V	D-R	D-R	29
30	Commerce... 50	58.0	175	192	24000	9600	S 36x6	S 40x14	Bud BA6	6-4 1/2 x 5 1/2	411	40.8	83-2100	L	H	C	2 1/2	9 1/2	4	FP	Co	Zen	V	A-L	A-L	30
31	Condor... CHB	210	236	2400	24000	10100	B 9.00/20	DB9.00/20	Con 16H	6-4 1/2 x 5 1/2	611.4	54.1	127-2300	L	H	C	3 1/2	13 1/2	7	PC	Pe	Str	M	A-L	A-L	31
32	Condor... CGW	157	240	2400	24000	9500	B 9.00/20	DB9.00/20	Con 21R	6-4 1/2 x 5 1/2	428	45.9	100-2200	L	H	C	2 1/2	13 1/2	7	PC	No	Zen	M	A-L	A-L	32
33	(Z) Corbitt... 24	195	30	2480	24000	9200	P 38x9	DP38x9	Con 20R	6-4 1/2 x 4 1/2	381	40.8	88-2200	H	C	C	2 1/2	13 1/2	7	FP	Co	Zen	V	D-R	D-R	33
34	Day Elder... 240	5500	204	Op	27050	9550	P 36x8	DP36x8	Own 331	6-4 1/2 x 5 1/2	427.5	45.9	102-2400	H	C	C	2 1/2	13 1/2	7	FP	Co	Zen	V	D-R	D-R	34
35	Diamond T... 750	4650	178	239	24000	9000	B 9.75/22	DB9.75/22	Her YXC4	6-4 1/2 x 5 1/2	529.0	51.3	124-2200	L	H	C	3 1/2	13 1/2	7	PC	Ha	Zen	M	A-L	A-L	35
36	Douglas... F4	5500	185	Op	26000	9200	S 36x6	S 40x12	Bud BBU	4-5 1/2 x 5 1/2	510.5	40.0	61-1400	L	H	C	2 1/2	12 1/2	3	PC	Co	Zen	E	L-N	L-N	36
37	Douglas... F6	6300	196	Op	26000	9200	B 9.75/38	DB9.75/38	Bud GL6	6-4 1/2 x 5 1/2	572.5	48.6	114-1900	L	H	C	3 1/2	10 1/2	4	FP	Co	Zen	E	L-N	L-N	37
38	Duplex... M 5-7 Ton	7600	Op	Op	28000	10000	P 34x7	DP36x7	Bud GL6	6-4 1/2 x 5 1/2	572.5	48.6	105-2200	L	H	C	3 1/2	10 1/2	4	FP	Co	Zen	V	A-L	A-L	38
39	Federal 4C6A 4-5 T	4735	192	231	24000	8330	P 36x8	DP 36x8	Con 20R	6-4 1/2 x 4 1/2	381	40.8	90-2200	H	C	C	2 1/2	13 1/2	7	PC	Co	Zen	M	D-R	D-R	39
40	Federal 4C6AB 4-5 T	4960	192	231	24000	8530	P 36x8	DP36x8	Con 20R	6-4 1/2 x 4 1/2	381	40.8	90-2200	H	C	C	2 1/2	13 1/2	7	PC	Co	Zen	M	D-R	D-R	40
41	Fisher-Std... 100A	168	18	2160	24000	8300	P 36x8	DP36x8	Con 21R	6-4 1/2 x 4 1/2	427.5	45.9	102-2400	H	C	C	2 1/2	13 1/2	7	FP	Ha	Zen	M	D-R	D-R	41
42	Fisher-Std... 105A	168	18	2160	24000	8400	P 36x8	DP36x8	Con 21R	6-4 1/2 x 4 1/2	427.5	45.9	102-2400	H	C	C	2 1/2	13 1/2	7	FP	Ha	Zen	M	D-R	D-R	42
43	F.W.D... M5	7600	165	Op	24800	11800	B 12.75/20	B 12.75/20	Wau SRL	6-																

Line Number	Make, Model and Capacity	General			Tire Size		Engine										Fuel System	Electrical System	Line Number								
		Chassis Price	Standard W.B.	Max. W.B. Furnished	Gross Vehicle Wt. (See Key Note)	Chassis Wt. (Stripped)	Front	Rear	Make and Model	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P. at 60.0	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings	Length Main Bearings		No. Main Bearings	Oiling System	Governor Make	Carburetor Make	Fuel Feed	Ignition System Make	Generator, Starter Make	
5 1/2 Ton and More—Cont'd																											
1	Gottfredson, RW104A	169	193		12000	S 36x6	DS40x8	Bud BBU	4-5x6 1/4	40.0			L	L						PC	Pe	Zen	V	M	R-Bo	D-R	
2	Gottfredson, RW106A	173	196		12400	S 36x6	DS40x8	Own	6-4 1/2 x 5 1/4	48.6			L	L						PC	Pe	Zen	V	M	R-Bo	D-R	
3	G-P, 85-6, 5-7	5875	169	Op	24000	B10.50/20	DB10.50/20	Wau 6AB	6-4 1/2 x 5 1/4	549	48.6	100-2000	L	L						PC	Pe	Zen	V	M	A-L	A-L	
4	G-P, 85-8, 5-7	169	Op	Op	24000	B10.50/20	DB10.50/20	Lyc AED	8-3 1/2 x 4 1/2	420	45.0	140-3000	L	L						PC	Pe	Zen	V	M	A-L	A-L	
5	G-P, 95-6, 7-10	6670	159	196	33000	B10.50/24	DB10.50/24	Wau 6RB	6-5x5 1/4	677.0	60.0	25-2000	L	L						PC	Pe	Zen	V	M	A-L	A-L	
6	Hahn & Selden, 77 5-7				27800					611.4		127-2300	L	L													
7	Indiana, 5 1/2-7 1/2	182	224		25000	P 40x8	DP40x8	Con	6-4 1/2 x 5 1/4	427.5	45.9	100-2400	L	L						7 CC	KP	Str	M	A-L	A-L	7	
8	Indiana, 7 1/2-10T 290	182	212		10750	P 38x7	S 40x14	Con	6-4 1/2 x 5 1/4	611.4	54.2	116-1800	L	L						7 FC	Pe	Str	M	A-L	A-L	8	
9	La Fran.-Republic, 35-2	174	198		9250	P 38x9	DP38x9	Wau 6AB	6-4 1/2 x 5 1/4	549.0	48.6	98-1850	L	L						7 FC	Pe	Zen	M	A-L	A-L	9	
10	Mack AC, 5500	156	240			S 36x6	DS40x6	Own AC	4-5x6	471.2	40.0	77-1800	L	L						4 PS	On	Str	G	R-Bo	A-L	10	
11	Mack AC, 6550	174	240			B10.50/24	DB10.50/24	Own BK	6-4 1/2 x 5 1/4	525.5	48.6	126-2200	L	L						4 PS	On	Str	G	R-Bo	A-L	11	
12	Mack AC, 6000	156	240			S 36x7	DS40x7	Own AC	4-5x6	471.2	40.0	77-1800	L	L						4 PS	On	Str	G	R-Bo	A-L	12	
13	Mack AP, 9500	191	191			S 38x7	DS40x8	Own AP	6-5x6	706.5	60.0	150-2000	L	L						4 PS	On	Str	G	R-Bo	A-L	13	
14	Moreland, H7	5200	196		22000	P 36x8	DP36x8	Her YXC	6-4 1/2 x 4 1/4	428.4	45.9	94-2200	L	L						7 PC	No	Zen	M	A-L	A-L	14	
15	Netco, K6500	180	220		32000	B10.50/40	DB10.50/40	Lyc AEC	8-3 1/2 x 4 1/2	420	140	140-2800	L	L						5 FC	Ha	Zen	M	A-L	A-L	15	
16	Pierce-Arrow, PZ	168	204		12800	S 36x7	DS40x8	Own	6-4 1/2 x 5 1/4	611.4	54.1	130-2000	L	L						7 FC	Ha	Zen	M	A-L	A-L	16	
17	Relay, 100B, 7 1/2 Ton	6900	220		29200	B 9.75/24	DB9.75/24	Buda GF6	6-4 1/2 x 6	638	54.1	118-1850	L	L						4 PC	Ha	Zen	E	A-L	A-L	17	
18	Schacht, 70 7 1/2 Ton	168	200		10500	S 36x7	DS 40x8	Wau SRL	6-4 1/2 x 5 1/4	462.0	45.9	127-2300	L	L						7 FC	Ha	Zen	M	A-L	A-L	18	
19	Service, 1002B	5830	175		9600	S 36x6	S 40x14	Bud BA6	6-4 1/2 x 6	410.9	40.8	83-2100	L	L						4 PC	Bu	Zen	V	A-L	A-L	19	
20	Standard, 5-7		165	180	8700	S 36x6	S 40x14	Con B5	4-4 1/2 x 6	425.3	36.1		L	L						3 FC	Si	Str	V	Els	A-Bo	20	
21	Sterling FW140, FD140	192	222		10050	P 40x8	DP42x9	Wau SRL	6-4 1/2 x 5 1/4	462.0	45.9	102-2400	L	L						7 CC	Wa	Zen	M	D-R	D-R	21	
22	Sterling, FC135	192	222		8755	P 40x8	DP40x8	Wau SRL	6-4 1/2 x 5 1/4	462.0	45.9	102-2400	L	L						7 CC	Wa	Zen	M	D-R	D-R	22	
23	Sterling FC140.6, 7 1/2	200	230		9055	P 40x8	DP40x8	Wau HB	6-4 1/2 x 5 1/4	489.0	43.4	90-2000	L	L						4 CC	Wa	Zen	M	D-R	D-R	23	
24	Sterling FC145-6, 7 1/2	200	230		9555	P 40x8	DP40x8	Wau AB	6-4 1/2 x 5 1/4	549.0	48.6	99-2000	L	L						4 CC	Wa	Zen	M	D-R	D-R	24	
25	Ster FC170-7 1/2, 9	200	230		10500	P 40x8	DP44x10	Wau AB	6-4 1/2 x 5 1/4	549.0	48.6	126-2200	L	L						4 CC	Wa	Zen	M	D-R	D-R	25	
26	Sterling FC170 7 1/2, 9	200	230		10255	P 40x8	DP42x9	Wau RB	6-5x5 1/4	677.0	60.0	125-2000	L	L						4 CC	Wa	Zen	M	D-R	D-R	26	
27	Stewart, 27X 7 Ton	5700	165	235	10040	P 36x7	P 40x7	Wau 6SRL	6-4 1/2 x 5 1/4	462.0	45.9	100-2000	L	L						7 P	Wa	Str	V	D-R	D-R	27	
28	Walter, FHR 7 1/2 T	9000	Op	31000	10000	B10.50/2	DB10.50/2	Own 6	6-4 1/2 x 5 1/4	549.0	48.6	100-1800	L	L						7 CC	On	Zen	V	R-Bo	D-R	28	
29	Ward La France 50D-7	Op	Op	28000		P 40x8	DP40x8	Wau SRL	6-4 1/2 x 5 1/4	462.0	45.9	97-2000	L	L						7 FC	Pe	Str	P	D-R	D-R	29	
30	Ward-La France 55B6	Op	Op	26000		B 9.75/20	DB10.50/20	Lyc	8-3 1/2 x 4 1/2	420.0	45.0	130-2800	L	L						5 FC	No	Zen	M	D-R	D-R	30	
31	Ward-La Fr. 75RW17 1/2	Op	Op	28000		B 10.50/20	DB10.50/20	Wau RB	6-5x5 1/4	677.0	60.0	127-2300	L	L						4 FC	Wa	Zen	M	D-R	D-R	31	
32	Ward-La Fr. 100RW10	Op	Op	34000		B 10.50/24	DB10.50/24	Wau RB	6-5x5 1/4	677.0	60.0	127-2300	L	L						7 FC	On	Zen	M	D-R	D-R	32	
33	White, 52	5100	174	215	9409	S 36x6	S 40x12	Own GRB	4-4 1/2 x 5 1/4	326.3	28.9	54-1600	L	L						1 FC	FP	On	Zen	V	Els	A-L	33
34	Witt-Will, R55	5700	159		27000	B10.50/20	DB10.50/20	Con 21R	6-4 1/2 x 5 1/4	427.5	51.2	100-2600	H	C	S	N	2 1/2	1 1/2	7 FC	No	Zen	M	D-R	D-R	34		
35	Woods, 105	6975	190	Op	8700	B 10.50/22	DB10.50/22	Her HXC	6-5 1/2 x 6	770.0	66.1	164-2000	L	L						7 FC	Ha	Str	M	R-Bo	A-L	35	
Six-Wheelers																											
36	Autocar, G 10T	9000	171	238	36000	P 36x8	DP36x8	Own	6-4 1/2 x 4 1/4	453.0	48.6	101-2400	L	G	C	3	13 1/2	7 FC	Pe	Str	V	D-R	L-N	L-N	36		
37	Brockway 640, 10 Ton		212	224	40000	P 38x7	S 36x10	Con	6-4 1/2 x 5 1/4	611.4	54.2	116-1800	L	G	C	3	13 1/2	7 FC	Pe	Str	V	D-R	L-N	L-N	37		
38	Chicago, 1-56-D		174	222	35740	B 9.75/20	DB9.75/20	Wau 6SRL	6-4 1/2 x 5 1/4	462.0	45.9	97-2000	L	G	C	3	13 1/2	7 FC	Pe	Str	V	D-R	L-N	L-N	38		
39	Corbitt, 20SW6	Op	Op	22000	9000	B 7.50/20	DB7.50/20	Con 20R	6-4 1/2 x 4 1/4	411.0	40.0	89-2400	H	G	C	2 1/2	13 1/2	7 FC	No	Zen	M	A-L	A-L	D-R	39		
40	Corbitt, 28SW6	Op	Op	30000	10000	P 34x7	DP34x7	Con 21R	6-4 1/2 x 4 1/4	427.5	45.9	100-2600	H	G	C	2 1/2	13 1/2	7 FC	No	Zen	M	A-L	A-L	D-R	40		
41	Corbitt, 36SW6	Op	Op	38000	11500	P 36x8	DP36x8	Con 21R	6-4 1/2 x 4 1/4	427.5	45.9	100-2600	H	G	C	2 1/2	13 1/2	7 FC	No	Zen	M	A-L	A-L	D-R	41		
42	Corbitt, 40SW6	Op	Op	42000	13000	P 38x9	DP38x9	Con 16H	6-4 1/2 x 5 1/4	611.4	54.2	127-2300	H	G	C	2 1/2	13 1/2	7 FC	No	Zen	M	A-L	A-L	D-R	42		
43	Day Elder 285 8 Ton	6000	164	204	28500	B 8.25/20	DB8.25/20	Con 21R	6-4 1/2 x 4 1/4	427.5	45.9	100-2600	H	G	C	2 1/2	13 1/2	7 FC	Co	Zen	V	D-R	D-R	D-R	43		
44	Day Elder 345 10 Ton	7500	162	204	34500	B 9.00/20	DB9.00/20	Con 21R	6-4 1/2 x 4 1/4	427.5	45.9	100-2600	H	G	C	2 1/2	13 1/2	7 FC	Co	Zen	V	D-R	D-R	D-R	44		
45	Day Elder 402 12 Ton	9000	164	204	40200	B 9.75/20	DB9.75/20	Con 16-H	6-4 1/2 x 5 1/4	611.4	54.2	127-2300	L	G	C	3	15	7 FC									

Line Number	Radiator Make	Clutch	Gear Set	Type and Make	Make and Model	Location	No. of Forward Speeds	Aux. Locat. and Speeds	Universal Make and No.	Make and Model	Rear Axle			Front Axle			Brakes			Frame			Body Mounting Data			Springs			Line Number
											Wheels Driven	Final Drive and Type	Drive and Torque	Gear Ratios	Service	Area Service Brakes	Hand	Steering Gear Make	Dim. Side Rail	Type	Cab to Rear of Frame	Cab to Rear Axle	Width of Frame	Front	Rear	Auxiliary Type			
																											Reduc. in High	Reduc. in Low		Make and Model
5 1/2 Ton and more Cont'd																													
1	Lon	D.B-L	B-L-60 Max	A	2	...	Spl	Tim 68700DP	WF	11.7	111	Tim 17302	B41M	...	Ros	12x3 1/2 x 3 1/2	T	159	86 3/4	34	42 1/2 x 3	61 1/2 x 3	...	...	...	...	...	1
2	McC	D.B-L	B-L-60 Max	A	2	...	Spl	Tim 68700DP	WF	10.9	95.0	Tim 17302	B41M	...	Ros	12x3 1/2 x 3 1/2	T	159	86 3/4	34	42 1/2 x 3	61 1/2 x 3	...	...	...	...	...	2
3	Own	D.Ful	Ful MHU	A	4	...	MM8	Wis 1567W	DF	9.00	113.	Tim 27450TW	B41M	...	CD	Ros	14x3 1/2 x 3 1/2	T	159	129	35 1/2	44 1/2 x 3	60 1/2 x 3	...	...	...	...	3
4	Own	D.Ful	Ful MHU	A	4	...	MM8	Wis 1567W	DF	9.00	113.	Tim 27450TW	B41M	...	CD	Ros	14x3 1/2 x 3 1/2	T	159	129	35 1/2	44 1/2 x 3	60 1/2 x 3	...	...	...	...	4
5	Own	D.Ful	Ful MHU	A	4	...	MM8	Wis 19000W	DF	10.1	121	Tim 27450TW	B41M	...	CD	Ros	14x3 1/2 x 3 1/2	T	159	129	35 1/2	44 1/2 x 3	60 1/2 x 3	...	...	...	...	5
6	Own	D.B-L	B-L	A	4	...	Blo	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	
7	Lon	D.B-L	B-L	A	4	...	No Spl	Tim	WF	8.75	63.7	Shu	L41HV	664	CD	Ros	8x3x 1/4	P	162	99	36	40x3	58x4	...	...	...	...	7
8	Own	D.B-L	B-L	A	4	...	No Spl	Tim	WF	10.9	95.0	Shu	L41HV	676	TD	Ros	8x3x 1/4	P	162	99	36	40x3	58x4	...	...	...	...	8
9	Own	D.Ful	Ful MHU	A	4	...	No Spl	Tim	2F	7.33	46.3	Tim 26450-H	L41HV	870	FD	Han	9 1/2 x 3 1/2 x 3 1/2	P	128 1/2	81 1/2	36	44x3	60x3 1/2	...	...	...	...	9
10	Own	P.Own	Own AC	J	4	...	No Spl	Own AC	CD	6.46	41.5	Own AC	OJXM	194	2I	Own	8x3x 1/4	C	132	92	37	46x3 1/2	52x4	...	...	...	...	10
11	Own	P.Own	Own AC	J	4	...	No Spl	Own AC	CD	6.46	41.5	Own AC	OJXM	194	2I	Own	8x3x 1/4	C	132	92	37	46x3 1/2	52x4	...	...	...	...	11
12	Own	P.Own	Own AC	J	4	...	No Spl	Own AC	CD	6.46	41.5	Own AC	OJXM	194	2I	Own	8x3x 1/4	C	132	92	37	46x3 1/2	52x4	...	...	...	...	12
13	Own	P.Own	Own AP	J	4	...	No Spl	Own AP	CD	6.46	41.5	Own AC	O21V	287	JX	Own	8x3x 1/4	C	132	92	37	46x3 1/2	52x4	...	...	...	...	13
14	Own	P.B-L	B-L 554	U	12	...	A	Cle	WF	9.00	99.2	Tim 16710H	L41HV	...	TI	Ros	9 1/2 x 3 1/2 x 3 1/2	C	168	113	34	39 1/2 x 2 1/2	56x3 1/2	...	...	...	...	14
15	Mod	D.B-L	B-L	A	4	...	No Spl	Tim	2F	7.33	46.3	Tim 26450H	L41HV	690	...	Ros	9x3x 1/4	C	120	120	33	44x3	56x4	...	...	...	...	15
16	Own	P.Own	Own AC	J	4	...	No Spl	Own AC	WF	11.7	61	Tim	W41A	702	ID	Han	10x3x 1/4	C	139	84 1/2	38 1/2	41x3	56x5	...	...	...	...	16
17	Mod	P.B-L	B-L 1714	A	7	...	No Spl	Tim	2R	7.4	49.7	Tim 27450	L41HV	480	FX	Han	9 1/2 x 3 1/2 x 3 1/2	C	192	134	34	42x3	56x4	...	...	...	...	17
18	Own	P.B-L	B-L 1714	A	7	...	No Spl	Tim	2R	7.4	49.7	Tim 27450	L41HV	480	FX	Han	9 1/2 x 3 1/2 x 3 1/2	C	192	134	34	42x3	56x4	...	...	...	...	18
19	Own	P.B-L	B-L 1714	A	7	...	No Spl	Tim	2R	7.4	49.7	Tim 27450	L41HV	480	FX	Han	9 1/2 x 3 1/2 x 3 1/2	C	192	134	34	42x3	56x4	...	...	...	...	19
20	Own	P.B-L	B-L 1714	A	7	...	No Spl	Tim	2R	7.4	49.7	Tim 27450	L41HV	480	FX	Han	9 1/2 x 3 1/2 x 3 1/2	C	192	134	34	42x3	56x4	...	...	...	...	20
21	Mod	D.B-L	B-L 60	A	4	...	No Spl	Tim	WF	10.9	95.0	Tim 17300	B41M	...	Ros	15x3 1/2 x 1 1/2	C	172	108	34	48x3	60x4	...	...	...	...	21	
22	Mod	D.B-L	B-L 60	A	4	...	No Spl	Tim	WF	10.9	95.0	Tim 17300	B41M	...	Ros	15x3 1/2 x 1 1/2	C	172	108	34	48x3	60x4	...	...	...	...	22	
23	Mod	D.B-L	B-L 60	A	4	...	No Spl	Tim	WF	10.9	95.0	Tim 17300	B41M	...	Ros	15x3 1/2 x 1 1/2	C	172	108	34	48x3	60x4	...	...	...	...	23	
24	Mod	D.B-L	B-L 60	A	4	...	No Spl	Tim	WF	10.9	95.0	Tim 17300	B41M	...	Ros	15x3 1/2 x 1 1/2	C	172	108	34	48x3	60x4	...	...	...	...	24	
25	Mod	D.B-L	B-L 60	A	4	...	No Spl	Tim	WF	10.9	95.0	Tim 17300	B41M	...	Ros	15x3 1/2 x 1 1/2	C	172	108	34	48x3	60x4	...	...	...	...	25	
26	Mod	D.B-L	B-L 60	A	4	...	No Spl	Tim	WF	10.9	95.0	Tim 17300	B41M	...	Ros	15x3 1/2 x 1 1/2	C	172	108	34	48x3	60x4	...	...	...	...	26	
27	Own	D.Ful	Ful MHU	A	4	...	US Spl	Tim	2D	7.8	55.0	Tim	B41MV	...	TX	Ros	9 1/2 x 2 1/2 x 1 1/2	C	126 1/2	76 1/2	32	40x3	56x4	...	...	...	...	27
28	Own	D.Ful	Ful MHU	A	4	...	US Spl	Tim	2D	7.8	55.0	Tim	B41MV	...	TX	Ros	9 1/2 x 2 1/2 x 1 1/2	C	126 1/2	76 1/2	32	40x3	56x4	...	...	...	...	28
29	Own	D.Ful	Ful MHU	A	4	...	US Spl	Tim	2D	7.8	55.0	Tim	B41MV	...	TX	Ros	9 1/2 x 2 1/2 x 1 1/2	C	126 1/2	76 1/2	32	40x3	56x4	...	...	...	...	29
30	Per	P.B-L	B-L	A	4	...	No Spl	Tim	WF	10.9	95.0	Tim	W841A	...	TD	Ros	8x3 1/2 x 1 1/2	C	132	92	37	46x3 1/2	52x4	...	...	...	...	30
31	Per	P.B-L	B-L	A	4	...	No Spl	Tim	WF	10.9	95.0	Tim	W841A	...	TD	Ros	8x3 1/2 x 1 1/2	C	132	92	37	46x3 1/2	52x4	...	...	...	...	31
32	Per	P.B-L	B-L	A	4	...	No Spl	Tim	WF	10.9	95.0	Tim	W841A	...	TD	Ros	8x3 1/2 x 1 1/2	C	132	92	37	46x3 1/2	52x4	...	...	...	...	32
33	Own	P.Own	Own GRBA	A	5	...	A1 Spl	Tim	2F	7.4	49.7	Tim 26050H	L41HV	...	TD	Ros	8x3x 1/4	C	166	105 1/2	42 1/2	44x3	51 1/2 x 5	...	...	...	...	33
34	Per	D.B-L	B-L 60	A	4	...	No Spl	Tim	WF	10.9	95.0	Tim 26050H	L41HV	...	TD	Ros	8x3x 1/4	C	166	105 1/2	42 1/2	44x3	51 1/2 x 5	...	...	...	...	34
35	Chi	D.B-L	B-L 60	A	4	...	No Spl	Tim	2F	7.4	49.7	Tim 26050H	L41HV	...	TD	Ros	8x3x 1/4	C	166	105 1/2	42 1/2	44x3	51 1/2 x 5	...	...	...	...	35
Six-Wheelers																													
36	Own	D.B-L	B-L 70	A	7	...	No Spl	Tim	4R	10.6	100	Tim 27450	T61A	720	TD	Ros	10 1/2 x 3 1/2 x 3 1/2	P	219	86 3/4	34	42 1/2 x 3	61 1/2 x 3	...	...	...	...	36
37	Lon	D.B-L	B-L 70	A	7	...	No Spl	Tim	4R	10.6	100	Tim 27450	T61A	720	TD	Ros	10 1/2 x 3 1/2 x 3 1/2	P	219	86 3/4	34	42 1/2 x 3	61 1/2 x 3	...	...	...	...	37
38	Chi	D.B-L	B-L 60 Max	A	7	...	No Spl	Tim	4R	10.6	100	Tim 27450	T61A	720	TD	Ros	10 1/2 x 3 1/2 x 3 1/2	P	219	86 3/4	34	42 1/2 x 3	61 1/2 x 3	...	...	...	...	38
39	Per	P.B-L	B-L 615	A	5	...	No Spl	Tim	4R	10.6	100	Tim 27450	T61A	720	TD	Ros	10 1/2 x 3 1/2 x 3 1/2	P	219	86 3/4	34	42 1/2 x 3	61 1/2 x 3	...	...	...	...	39
40	Per	P.B-L	B-L 607	A	5	...	No Spl	Tim	4R	10.6	100	Tim 27450	T61A	720	TD	Ros	10 1/2 x 3 1/2 x 3 1/2	P	219	86 3/4	34	42 1/2 x 3	61 1/2 x 3	...	...	...	...	40
41	Per	P.B-L	B-L 607	A	5	...	No Spl	Tim	4R	10.6	100	Tim 27450	T61A	720	TD	Ros	10 1/2 x 3 1/2 x 3 1/2	P	219	86 3/4	34	42 1/2 x 3	61 1/2 x 3	...	...	...	...	41
42	Per	P.B-L	B-L 607	A	5	...	No Spl	Tim	4R	10.6	100	Tim 27450	T61A	720	TD	Ros	10 1/2 x 3 1/2 x 3 1/2	P	219	86 3/4	34	42 1/2 x 3	61 1/2 x 3	...	...	...	...	42
43	Per	P.B-L	B-L 607	A	5	...	No Spl	Tim	4R	10.6	100	Tim 27450	T61A	720	TD	Ros	10 1/2 x 3 1/2 x 3 1/2	P	219	86 3/4	34	42 1/2 x 3	61 1/2 x 3	...	...	...	...	43
44	Per	P.B-L	B-L 607	A	5	...	No Spl	Tim	4R	10.6	100	Tim 27450	T61A	720	TD	Ros	10 1/2 x 3 1/2 x 3 1/2	P	219	86 3/4	34	42 1/2 x 3	61 1/2 x 3	...	...	...	...	44
45	Per	P.B-L	B-L 607	A	5	...	No Spl	Tim	4R	10.6	100	Tim 27450	T61A	720	TD	Ros	10 1/2 x 3 1/2 x 3 1/2	P	219	86 3/4	34	42 1/2 x 3	61 1/2 x 3	...	...	...	...	45
46	G&O	D.Cov	B-L 70	A	7	...	No Spl	Tim	4R	10.6	100	Tim 27450	T61A	720	TD	Ros	10 1/2 x 3 1/2 x 3 1/2	P	219	86 3/4	34	42 1/2 x 3	61 1/2 x 3	...	...	...	...	46
47	G&O	D.Cov	B-L 70	A	7	...	No Spl	Tim	4R	10.6	100	Tim 27450	T61A	720	TD	Ros	10 1/2 x 3 1/2 x 3 1/2	P	219	86 3/4	34	42 1/2 x 3	61 1/2 x 3	...	...	...	...	47
48	G&O	D.Cov	B-L 70	A	7	...	No Spl	Tim	4R	10.6	100	Tim 27450	T61A	720	TD	Ros	10 1/2 x 3 1/2 x 3 1/2	P	219	86 3/4	34	42 1/2 x 3	61 1/2 x 3	...	...	...	...	48
49	Own	D.Ful	Ful H-OG	A	8	...	No Spl	Tim	4R	10.6	100	Tim 27450	T61A	720	TD	Ros	10 1/2 x 3 1/2 x 3 1/2	P	219	86 3/4	34	42 1/2 x 3	61 1/2 x 3	...	...	...	...	49
50	Own	D.Ful	Ful H-OG	A	8	...	No Spl	Tim	4R	10.6	100	Tim 27450	T61A	720	TD	Ros	10 1/2 x 3 1/2 x 3 1/2	P	219	86 3/4	34	42 1/2 x 3	61 1/2 x 3	...	...	...	...	50
51	Per	P.B-L	B-L 314	A	4	...	No Spl	Tim	4R	10.6	100	Tim 27450	T61A	720	TD	Ros	10 1/2 x 3 1/2 x 3 1/2	P	219	86 3/4	34	42 1/2 x 3	61 1/2 x 3	...	...	...	...	51
52	Per	P.B-L	B-L 554 & 60	A	12	...	No Spl	Tim	2R	7.4	49.7	Tim 15302	T41A	504	TX	Ros	8x3 1/2 x 1 1/2	C	192	114 1/2	34	41x3	46x3 1/2	...	...	...	...	52
53	Per	P.B-L	B-L 554 & 60	A	12	...	No Spl	Tim	2R	7.4	49.7	Tim 15302	T41A	504	TX	Ros	8x3 1/2 x 1 1/2	C	192	114 1/2	34	41x3	46x3 1/2	...	...	...	...	53
54	Per	P.B-L	B-L 554 & 60	A	12	...	No Spl	Tim	2R	7.4	49.7	Tim 15302	T41A	504	TX	Ros													